The National BIM Library

BIM Object Guide: Liquid Applied Warm Roof Covering Systems

Version 1.0

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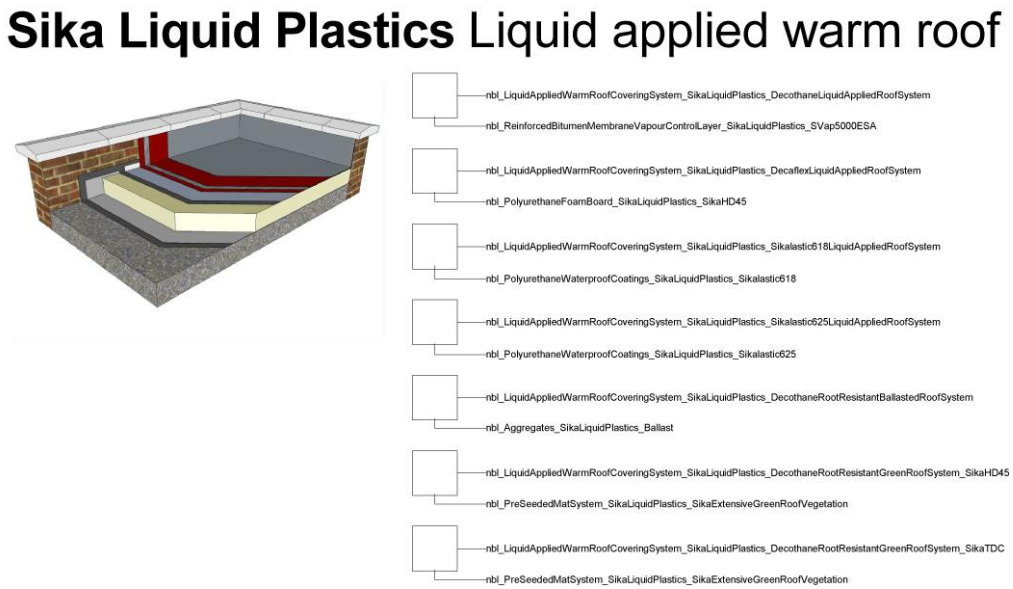
Contents

1.0 Introduction

This guide covers the use of Sika Liquid Plastics Liquid Applied Warm Roof Covering Systems included within the National BIM Library.

Liquid Applied Warm Roof Covering System



All systems listed below are included in the following file:

nbl_LqdApWmRfCovSym_SikaLiquidPlastics

Decothane Liquid Applied Roof System

- Decothane
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

Decaflex Liquid Applied Roof System

- Decaflex
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

Sikalastic© 618 Liquid Applied Roof System

- Sikalastic© 618
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

Sikalastic© 625 Liquid Applied Roof System

- Sikalastic© 625
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

Decothane Root Resistant Ballasted Roof System

- Ballast
- Sika Filtration Layer
- Decothane Root Resistant
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

Decothane Root Resistant Green Roof System – Sika HD45

- Sika Extensive Green Roof Vegetation
- SikaGrow*plus* Extensive
- S-Felt VS 140
- Sika HD45
- S-Felt T 300
- Decothane Root Resistant
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

Decothane Root Resistant Green Roof System – Sika TDC

- Sika Extensive Green Roof Vegetation
- SikaGrow*plus* Extensive
- S-Felt VS 140
- Sika TDC
- S-Felt T 300
- Decothane Root Resistant
- Carrier Membrane SA
- Decotherm©
- S-Vap 5000E SA

1.1 Naming

National BIM Library objects are named to identify their type and configuration. Fields are segregated using an under bar (_) and information within each field is segregated using hyphens (-). Fields are abbreviated to reduce characters and capitals used at the start of each abbreviation to aid readability.

File name and objects are named as below:

File name
Field1 *Author*_**Field2** *Category*_**Field3** *Manufacturer*_**Field4** *Product Range*

Object
Field1 *Author*_ **Field2** *Category* **Field3** *Manufacturer*_**Field4** *Product*_**Field5** *Differentiator*

2.0 System Parameters

Parameters included in the Liquid Applied Warm Roof Covering System BIM objects are as follows:

2.1 National BIM Library Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIM object can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

2.2 NBS Parameters

Ballast	Suitable ballast type.
CarrierMembraneFixing	Fixing method.
CarrierMembraneType	Carrier membrane to provide a stable, level surface.

Certification	Product approval and certification by an accredited organisation.
InsulationFixing	Fixing method.
InsulationType	Thermal insulation to suit required performance characteristics.
OverlayFixing	Fixing method.
OverlayType	Overlay for a more stable surface for the liquid applied roofing.
SystemAccessories	Required accessories for the roofing system.
VapourControlLayer	Vapour control layer to reduce the amount of water vapour permeating through the roof construction and reducing the risk of condensation.
WaterproofCoatingReinforcement	Reinforcement type.
WaterproofCoatingSurfaceTreatment	Required surface treatment where maintenance or pedestrian access is required.
WaterproofCoatingType	Waterproof coating product.

2.3 Manufacturers Parameters

CarrierMembraneThickness	Carrier membrane thickness measured in [mm].
InsulationThickness	Insulation thickness measured in [mm].
WaterproofCoatingTypeThickness	Waterproof coating thickness measured in [mm].
OverlayTypeThickness	Overlay thickness measured in [mm].
WaterproofCoatingSurfaceTreatmentThickness	Surface treatment thickness measured in [mm].
SystemAccessoryOptions	Available accessories for the roofing system.
VapourControlLayerThickness	Vapour control layer thickness measured in [mm].

2.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
Compartmentation	Indication whether the object is designed to serve as a fire compartmentation (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
LoadBearing	Indicates whether the object is intended to carry loads (TRUE) or not (FALSE).
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
PitchAngle	Angle of the slab to the horizontal when used as a component for the roof.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.
ThermalTransmittance	Thermal transmittance coefficient (U-Value) of a material. Here the total thermal transmittance coefficient through the roof surface (including all materials).

2.5 COBie Parameters

The following COBie parameters have been included within the Liquid Applied Warm Roof Covering System BIM objects and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.0 Product Parameters

Parameters included in the Sika Liquid Plastics Liquid Applied Warm Roof Covering System products are listed below.

3.1 Ballast

The Ballast product can be found in the following file:
nbl_Agg_SikaLiquidPlastics_Ballast

Parameters included in the Ballast product are as follows:

3.1.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.1.2 NBS Parameters

3.1.3 Manufacturers Parameters

BallastMaximumWeight	The maximum ballast weight measured in [kgs/m²].
BallastMinimumWeight	The minimum ballast weight measured in [kgs/m²].
PavingSlabs	Paving slab description.
StoneBallast	Stone ballast description.

3.1.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.1.5 COBie Parameters

The following COBie parameters have been included within the Ballast product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.2 Carrier Membrane SA

The Carrier Membrane SA product can be found in the following file:
nbl_RBitmnMbrnUndl_SikaLiquidPlastics_CarrierMembraneSA

Parameters included in the Carrier Membrane SA product are as follows:

3.2.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.2.2 NBS Parameters

BitumenModification	Bitumen modification type.
Certification	Product approval and certification by an accredited organisation.

Class	SNPN Classification according to BS EN 13707.
MembraneCarrierMaterial	Type of material used for the membrane carrier.
StandardThickness	Standard thickness of product measured in [mm].
TopSurfaceFinish	Finish to top surface.
UndersideSurfaceFinish	Finish to underside surface.

3.2.3 Manufacturers Parameters

ElongationAtBreak	Elongation at break in accordance with BS EN 29073-3/ISO 9073-3.
Impermeability	Watertightness in accordance with BS EN 1928.
JointPeelResistance	Peel resistance of joints in accordance to BS EN 12316-1.
LoadRupture	Load at Rupture measured in [N/50mm].
MassPerUnitArea	Mass per unit area in accordance with BS EN 1849-2.
RollLength	Roll length measured in [mm].
RollWeight	Roll weight measured in [kg].
RollWidth	Roll width measured in [mm].
StaticLoadResistance	Resistance to static loading in accordance with BS EN 12730.
TearResistance	Resistance to tearing (nail shank) BS EN 12310-2.
TensileStrength	Tensile properties in accordance with EN 12311-1.
WaterVapourPermeability	Water vapour transmission properties in accordance with BS EN 1931.

3.2.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.3.5 COBie Parameters

The following COBie parameters have been included within the Carrier Membrane SA product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.3 Decaflex

The Decaflex product can be found in the following file:
nbl_PURWtrprfCoat_SikaLiquidPlastics_Decaflex

Parameters included in the Decaflex product are as follows:

3.3.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.3.2 NBS Parameters

Admixture	Requirement for a fibre reinforcement admixture.
Certification	Product approval and certification by an accredited organisation.

3.3.3 Manufacturers Parameters

SystemDryFilmThickness	Dry film thickness measured in [mm].
SystemEmbedmentLayer	Embedment layer product.
SystemOptions	Alternative system variations.
SystemPreparatoryLayer	Preparatory layer requirements.
SystemTearForce	Tear force measured in [N].
SystemTearStrength	Tear strength measured in [N/mm].
SystemTensileElongation	Tensile elongation measured in [%].
SystemTensileLoad	Tensile load measured in [N].
SystemTensileStrength	Tensile strength measured in [N/mm^2].
SystemTopCoat	Top coat finish.
SystemVapourPermeability	Vapour permeability measured in [g/m^2/day].

3.3.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.3.5 COBie Parameters

The following COBie parameters have been included within the Decaflex product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.4 Decothane

The Decothane product can be found in the following file:
nbl_PURWtrprfCoat_SikaLiquidPlastics_Decothane

Parameters included in the Decothane product are as follows:

3.4.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.4.2 NBS Parameters

Admixture	Requirement for a fibre reinforcement admixture.
Certification	Product approval and certification by an accredited organisation.

3.4.3 Manufacturers Parameters

SystemDryFilmThickness	Dry film thickness measured in [mm].
SystemEmbedmentLayer	Embedment layer product.
SystemOptions	Alternative system variations.
SystemPreparatoryLayer	Preparatory layer requirements.
SystemTearForce	Tear force measured in [N].
SystemTearStrength	Tear strength measured in [N/mm].
SystemTensileElongation	Tensile elongation measured in [%].
SystemTensileLoad	Tensile load measured in [N].
SystemTensileStrength	Tensile strength measured in [N/mm^2].
SystemTopCoat	Top coat finish.
SystemVapourPermeability	Vapour permeability measured in [g/m^2/day].

3.4.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.4.5 COBie Parameters

The following COBie parameters have been included within the Decothane product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.5 Decothane Root Resistant

The Decothane Root Resistant product can be found in the following file:
nbl_PURWtrprfCoat_SikaLiquidPlastics_DecothaneRootResistant

Parameters included in the Decothane Root Resistant product are as follows:

3.5.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.5.2 NBS Parameters

Admixture	Requirement for a fibre reinforcement admixture.
Certification	Product approval and certification by an accredited organisation.

3.5.3 Manufacturers Parameters

SystemDryFilmThickness	Dry film thickness measured in [mm].
SystemEmbedmentLayer	Embedment layer product.
SystemOptions	Alternative system variations.
SystemPreparatoryLayer	Preparatory layer requirements.
SystemTearForce	Tear force measured in [N].
SystemTearStrength	Tear strength measured in [N/mm].
SystemTensileElongation	Tensile elongation measured in [%].
SystemTensileLoad	Tensile load measured in [N].
SystemTensileStrength	Tensile strength measured in [N/mm^2].
SystemTopCoat	Top coat finish.
SystemVapourPermeability	Vapour permeability measured in [g/m^2/day].

3.5.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.5.5 COBie Parameters

The following COBie parameters have been included within the Decothane Root Resistant product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.6 Decotherm©

The Decotherm© product can be found in the following file:
nbl_PIRFoamBrd_SikaLiquidPlastics_Decotherm

Parameters included in the Decotherm© product are as follows:

3.6.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.6.2 NBS Parameters

Certification	Product approval and certification by an accredited organisation.

CompressiveStrength	The resistance of a material to breaking under compression. Measured in [kPa].
CrossSection	Thermal insulation cross sectional characteristics.
Edges	Indication whether board edges are rebated or square.
Facing	Indication whether boards facings are bonded or have composite overlay.
StandardThickness	Thermal insulation thickness range measured in [mm].

3.6.3 Manufacturers Parameters

BoardSizes	Thermal insulation board sizes available.
GlobalWarmingPotential	Global warning potential is a simplified index that can be used to estimate the potential future impacts of emissions of different gases upon the climate.
OzoneDepletionPotential	A rating given by the BRE based upon the environmental impacts of building elements and specifications by ranking them on an A+ to E rating scale.
ThermalConductivityOptions	Thermal conductivity according to insulation thickness measured in [W/mK].
WaterVapourTransmission	Water vapour transmission is a measure of the passage of water vapour through a substance. Measured in units of [MNs/g].
Uses	Roofing systems the thermal insulation can be used in.

3.6.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.6.5 COBie Parameters

The following COBie parameters have been included within the Decotherm© product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.7 S-Felt T 300

The S-Felt T 300 product can be found in the following file:
nbl_PolyFFlce_SikaLiquidPlastics_S-FeltT300

Parameters included in the S-Felt T 300 product are as follows:

3.7.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.7.2 NBS Parameters

Facing	Indication whether facings are bonded or have composite overlay.
StandardThickness	Standard thickness of product measured in [mm].

Weight	Membrane weight to avoid puncturing measured in [g/m^2].

3.7.3 Manufacturers Parameters

Elongation	Determination of tensile properties BS EN 12311-2.
RollLength	Standard roll length.
RollWeight	Standard roll weight.
RollWidth	Standard roll width.
Surface	Surface appearance.
TensileStrength	Determination of tensile properties BS EN 12311-2.

3.7.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
MassDensity	Material mass density, usually measured in [kg/m3].
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SpecificHeatCapacity	Specific heat of the products of combustion: heat energy absorbed per temperature unit. Usually measured in [J/kg K].
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.
ThermalConductivity	The rate at which thermal energy is transmitted through the material. Usually in [W/mK].

3.7.5 COBie Parameters

The following COBie parameters have been included within the S-Felt T 300 product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.8 S-Felt VS 140

The S-Felt VS 140 product can be found in the following file:
nbl_PolyplneFltrGeotx_SikaLiquidPlastics_S-FeltVS140

Parameters included in the S-Felt VS 140 product are as follows:

3.8.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.8.2 NBS Parameters

OpeningSize	Size of opening which allows particles of size d90 to pass through. Measured in [µm].
PunctureResistance	Puncture resistance measured in [N].

RecycledContent	Indication whether an additional virgin film should be specified to prevent the degrading of a recycled material.
StandardThickness	Product thickness measured in [mm].
TensileStrength	Tensile strength measured in [kN/m].
WaterFlowCapacity	Water flow capacity measured in [Lm²/s].
Weight	Weight of membrane to avoid puncture. Measured in [g/m²].

3.8.3 Manufacturers Parameters

Elongation	Determination of tensile properties BS EN 12311-2.
RollLength	Roll length measured in [m].
RollWeight	Standard roll weight.
RollWidth	Roll width measured in [m].

3.8.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.8.5 COBie Parameters

The following COBie parameters have been included within the S-Felt VS 140 product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.9 Sika Extensive Green Roof Vegetation

The Sika Extensive Green Roof Vegetation product can be found in the following file:
nbl_PreSdedMatSym_SikaLiquidPlastics_SikaExtensiveGreenRoofVegetation

Parameters included in the Sika Extensive Green Roof Vegetation product are as follows:

3.9.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.9.2 NBS Parameters

Fertilizer	Requirement for an admixture to promote growth.
Herbicide	Pesticides used to kill selective plants.
TopDressing	Required dressing where a grass seed cover is specified.
Turf	Turf type.
TurfNetting	Requirement for turf netting on steep slopes.
WeedSuppression	Suppression layer to control weed growth.

3.9.3 Manufacturers Parameters

VegetationCoverage	Installation coverage measured as a [%].
VegetationThickness	Vegetation thickness measured in [mm].
VegetationPlantingMix	Plant mix specification.
VegetationOptions	Available vegetation options for specification.

3.9.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.9.5 COBie Parameters

The following COBie parameters have been included within the Sika Extensive Green Roof Vegetation product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.10 Sika Filtration Layer

The Sika Filtration Layer product can be found in the following file:
nbl_PolythFiltrGeotx_SikaLiquidPlastics_SikaFiltrationLayer

Parameters included in the Sika Filtration Layer product are as follows:

3.10.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.10.2 NBS Parameters

OpeningSize	Size of opening which allows particles of size d90 to pass through. Measured in [µm].

PunctureResistance	Puncture resistance measured in [N].
StandardThickness	Product thickness measured in [mm].
TensileStrength	Tensile strength measured in [kN/m].
WaterFlowCapacity	Water flow capacity measured in [Lm²/s].
Weight	Weight of membrane to avoid puncture. Measured in [g/m²].

3.10.3 Manufacturers Parameters

RollLength	Product roll length measured in [m].
RollWidth	Product roll width measured in [m].

3.10.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.10.5 COBie Parameters

The following COBie parameters have been included within the Sika Filtration Layer product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.11 Sika HD45

The Sika HD45 product can be found in the following file:
nbl_PURFoamBrd_SikaLiquidPlastics_SikaHD45

Parameters included in the Sika HD45 product are as follows:

3.11.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.11.2 NBS Parameters

Certification	Product approval and certification by an accredited organisation.
CompressiveStrength	The resistance of a material to breaking under compression.

	Measured in [kPa].
CrossSection	Thermal insulation cross sectional characteristics.
Facing	Indication whether board facings are bonded or have composite overlay.
RecycledContent	Indication whether an additional virgin film should be specified to prevent the degrading of a recycled material.
StandardThickness	Standard thickness of product measured in [mm].

3.11.3 Manufacturers Parameters

DrainageCapacity	Drainage capacity measured in [l/m²].
Weight	Weight measured in [kg/m²].

3.11.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
MassDensity	Material mass density, usually measured in [kg/m3].
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SpecificHeatCapacity	Specific heat of the products of combustion: heat energy absorbed per temperature unit. Usually measured in [J/kg K].
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.
ThermalConductivity	The rate at which thermal energy is transmitted through the material. Usually in [W/mK].

3.11.5 COBie Parameters

The following COBie parameters have been included within the Sika HD45 product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.12 Sika TDC

The Sika TDC product can be found in the following file:
nbl_PEHDGeombrn_SikaLiquidPlastics_SikaTDC

Parameters included in the Sika TDC product are as follows:

3.12.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.12.2 NBS Parameters

Certification	Product approval and certification by an accredited organisation.
IntegralAccessories	Accessories for the product.

RecycledContent	Indication whether an additional virgin film should be specified to prevent the degrading of a recycled material.
StandardThickness	Standard thickness of product measured in [mm].
Weight	Membrane weight to avoid puncturing measured in [g/m^2].

3.12.3 Manufacturers Parameters

DrainageCapacity	Drainage capacity measured in [l/m²].
LoadBearingCapacity	Load bearing capacity measured in [kN/m²].
ThicknessOptions	Available options measured in [mm].
WaterStorageCapacity	Water storage capacity measured in [l/m²].

3.12.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
MassDensity	Material mass density, usually measured in [kg/m3].
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SpecificHeatCapacity	Specific heat of the products of combustion: heat energy absorbed per temperature unit. Usually measured in [J/kg K].
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.
ThermalConductivity	The rate at which thermal energy is transmitted through the material. Usually in [W/mK].

3.12.5 COBie Parameters

The following COBie parameters have been included within the Sika TDC product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.13 Sika SikaGrow[Plus] Extensive

The Sika SikaGrow[Plus] Extensive product can be found in the following file:
nbl_GreenRfSub_SikaLiquidPlastics_SikaGrowPlusExtensive

Parameters included in the SikaGrow[Plus] Extensive product are as follows:

3.13.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.13.2 NBS Parameters

AirContentAtMaximumWaterHoldingCapacity	Air content whilst at maximum water capacity measured as a [%].

OrganicMatter	Organic matter measured in [g/l].
PHRange	Product pH range according to BS 3882.
PoreSizeDistribution	Pore size distribution by mass measured as a [%].
Source	Location product has been sourced from
WaterHoldingCapacity	Maximum water holding capacity by volume measured as [%].
WaterPermeability	Products water permeability measured in [mm/min].

3.13.3 Manufacturers Parameters

PlantingMediumThickness	Planting medium thickness measured in [mm].
PlantingMediumMaterial	Planting medium material description.

3.13.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.13.5 COBie Parameters

The following COBie parameters have been included within the SikaGrow[Plus] Extensive product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.14 Sikalastic© 618

The Sikalastic© 618 product can be found in the following file:
nbl_PURWtrprfCoat_SikaLiquidPlastics_Sikalastic618

Parameters included in the Sikalastic© 618 product are as follows:

3.14.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.14.2 NBS Parameters

Admixture	Requirement for a fibre reinforcement admixture.
Certification	Product approval and certification by an accredited organisation.

3.14.3 Manufacturers Parameters

SystemDryFilmThickness	Dry film thickness measured in [mm].
SystemEmbedmentLayer	Embedment layer product.
SystemOptions	Alternative system variations.
SystemPreparatoryLayer	Preparatory layer requirements.
SystemTearForce	Tear force measured in [N].
SystemTearStrength	Tear strength measured in [N/mm].
SystemTensileElongation	Tensile elongation measured in [%].
SystemTensileLoad	Tensile load measured in [N].
SystemTensileStrength	Tensile strength measured in [N/mm^2].
SystemTopCoat	Top coat finish.
SystemVapourPermeability	Vapour permeability measured in [g/m^2/day].

3.14.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.14.5 COBie Parameters

The following COBie parameters have been included within the Sikalastic© 618 product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.15 Sikalastic© 625

The Sikalastic© 625 product can be found in the following file:
nbl_PURWtrprfCoat_SikaLiquidPlastics_Sikalastic625

Parameters included in the Sikalastic© 625 product are as follows:

3.15.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.15.2 NBS Parameters

Admixture	Requirement for a fibre reinforcement admixture.
Certification	Product approval and certification by an accredited organisation.

3.15.3 Manufacturers Parameters

SystemDryFilmThickness	Dry film thickness measured in [mm].
SystemEmbedmentLayer	Embedment layer product.
SystemOptions	Alternative system variations.
SystemPreparatoryLayer	Preparatory layer requirements.
SystemTearForce	Tear force measured in [N].
SystemTearStrength	Tear strength measured in [N/mm].
SystemTensileElongation	Tensile elongation measured in [%].
SystemTensileLoad	Tensile load measured in [N].
SystemTensileStrength	Tensile strength measured in [N/mm^2].
SystemTopCoat	Top coat finish.
SystemVapourPermeability	Vapour permeability measured in [g/m^2/day].

3.15.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.15.5 COBie Parameters

The following COBie parameters have been included within the Sikalastic© 625 product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.16 S-Vap 5000E SA

The S-Vap 5000E SA product can be found in the following file:
nbl_RBitmnMbrnVaprCtrlLyr_SikaLiquidPlastics_SVap500ESA

Parameters included in the S-Vap 5000E SA product are as follows:

3.16.1 NBL Parameters

Author	The name of the BIM objects Author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIMobject can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

3.16.2 NBS Parameters

BitumenModification	Bitumen modification type.
Certification	Product approval and certification by an accredited organisation.

MembraneCarrierMaterial	Type of material used for the membrane carrier.
RecycledContent	Indication whether an additional virgin film should be specified to prevent the degrading of a recycled material.
StandardThickness	Standard thickness of product measured in [mm].
WaterVapourResistance	Determination of water vapour transmission properties BS EN 1931.

3.16.3 Manufacturers Parameters

BottomSurfaceColour	Bottom surface colour.
ColdBendingTest	Foldability at low temperature in accordance with BS EN 495-5
DurabilityAgainstAlkaline	Methods for exposure to liquid chemicals, including water BS EN 1847.
DurabilityAgainstArtificial Ageing	Durability against artificial ageing in accordance with BS EN 1296.
ElongationAtBreak	Elongation at break in accordance with BS EN 29073-3/ISO 9073.
ImpactResistance	Resistance to impact in accordance with BS EN 12691.
JointPeelResistance	Peel resistance of joints in accordance to BS EN 12316-1.
JointShearResistance	Shear resistance of joints in accordance with BS EN 12317-2.
MassPerUnitArea	Mass per unit area in accordance with BS EN 1849-2.
RollLength	Roll length measured in [m].
RollWeight	Roll weight measured in [kg].
RollWidth	Roll width measured in [m].
Straightness	Straightness in accordance with BS EN 1848-2.
TearResistance	Resistance to tearing (nail shank) in accordance with BS EN 12310-2.
TensileStrength	Tensile properties in accordance with BS EN 12311-1.

TopSurfaceColour	Top surface colour.
VisibleDefects	Visible defects in accordance with BS EN 1850-2.
WaterTightness	Watertightness in accordance with BS EN 1928.

3.16.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website (http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is giving according to the national building code. It indicates the sound transmission resistance of this object by an index ration (instead of providing full sound absorption values).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
Material	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
Reference	Reference ID for this specified type in this project (e.g. type A-1).
SurfaceSpreadOfFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

3.16.5 COBie Parameters

The following COBie parameters have been included within the S-Vap 5000E SA product and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

4.0 Abbreviations

Agg	Aggregate
Ap	Applied
Bitmn	Bitumen
Brd	Board
Ctrl	Control
Cov	Covering
F	Fibre
Filtr	Filter
Flce	Fleece
Geombrn	Geomembrane
Geotx	Geotextile
Lyr	Layer
Lqd	Liquid
Mbrn	Membrane
nbl	national BIM library
PEHD	High Density Polyethylene
PIR	Polyisocyanurate
Poly	Polyester
Polyplne	Polypropylene
Polyth	Polyethylene
PUR	Polyurethane
R	Reinforced
Rf	Roof
Sded	Seeded
Sub	Substrate
Sys	System
Undl	Underlayer
Vapr	Vapour
Wtrprf	Waterproof
Wrm	Warm