



## The National BIM Library

BIM Object Guide: Adhered Roof Systems

**Sika-Trocal®**



Version 1.0

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[www.nationalBIMlibrary.com](http://www.nationalBIMlibrary.com)

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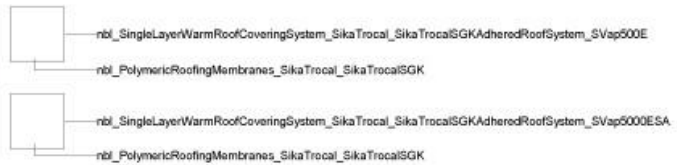
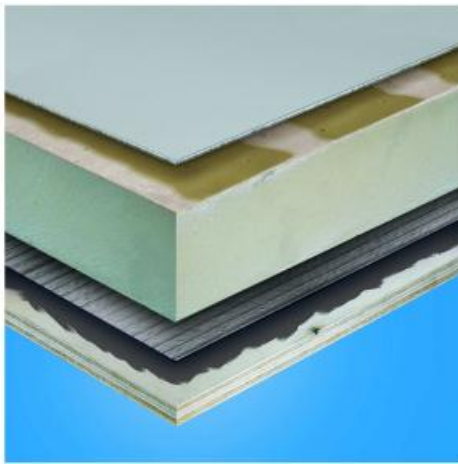
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## 1.0 Introduction

This guide covers the use of Sika-Trocal® Adhered Roof Systems included within the National BIM Library.

### Adhered Roof Systems

## Sika Trocal® Adhered roof systems



All systems listed below are included in the following file:  
nbl\_SglLyrWmRfCovSym\_SikaTrocal\_AdheredRoofSystems

### Sika-Trocal® SGK Adhered Roof System – S-Vap 500E

- Sika-Trocal® SGK
- Polyisocyanurate foam board
- S-Vap 500E

### Sika-Trocal® SGK Adhered Roof System – S-Vap 5000E SA

- Sika-Trocal® SGK
- Polyisocyanurate foam board
- 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 Adhered Roof System BIM objects are as follows:

### 2.1 National BIM Library Parameters

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

### 2.2 NBS Parameters

<b>Certification</b>	Product approval and certification by an accredited organisation.
<b>Insulation</b>	Thermal insulation to suit required performance characteristics.
<b>LowerProtectionLayer</b>	Lower layer to protect the vapour control layer from damage.

<b>SeperatingLayer</b>	Loose laid membrane to prevent direct contact between the waterproof covering and unfaced insulation boards.
<b>SurfaceProtection</b>	Surface protection layer to reduce the effects of solar gain or foot traffic.
<b>UpperProtectionLayer</b>	Further protection layer where a green roof covering is required or for protection when the roof is ballasted.
<b>VapourControlLayer</b>	Vapour control layer to reduce the amount of water vapour permeating through the roof construction and reducing the risk of condensation.
<b>WaterproofCovering</b>	Single layer polymeric sheet covering.

### 2.3 Manufacturers Parameters

<b>InsulationThickness</b>	Roof system insulation thickness measured in [mm].
<b>MinimumPitchAngle</b>	Roof system minimum pitch angle in accordance to BS 6229.
<b>SurfaceProtectionThickness</b>	Roof system surface protection thickness measured in [mm].
<b>UpperProtectionLayerThickness</b>	Roof system upper protection layer thickness measured in [mm]
<b>VapourControlLayerThickness</b>	Roof system vapour control layer thickness measured in [mm].
<b>WaterproofCoveringThickness</b>	Polymeric sheet covering thickness measured in [mm].

## 2.4 IFC Parameters

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

<b>AcousticRating</b>	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).
<b>Combustible</b>	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
<b>Compartmentation</b>	Property description Indication whether the object is made from combustible material (TRUE) or not (FALSE).
<b>FireRating</b>	Fire rating for this object. It is given according to the national fire safety classification.
<b>IsExternal</b>	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.
<b>LoadBearing</b>	Indicates whether the object is intended to carry loads (TRUE) or not (FALSE).
<b>Material</b>	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
<b>PitchAngle</b>	Angle of the slab to the horizontal when used as a component for the roof (specified as 0 degrees or not asserted for cases where the slab is not used as a roof component).
<b>Reference</b>	Reference ID for this specified type in this project (e.g. type A-1 ).
<b>SurfaceSpreadOfFlame</b>	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.
<b>ThermalTransmittance</b>	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 Adhered Roof System BIM objects and can be used to prepare COBie data schedules:

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

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

## 3.0 Product Parameters

Parameters included in the Sika-Trocal® Adhered Roof Covering System products are listed below.

### 3.1 Insulation

The Insulation product can be found in the following file:

nbl\_PIRFoamBrd\_SikaTrocal\_Insulation

**Parameters included in the Insulation product are as follows:**

#### 3.1.1 National BIM Library Parameters

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

### 3.1.2 NBS Parameters

<b>Certification</b>	Product approval and certification by an accredited organisation.
<b>CompressiveStrength</b>	The resistance of a material to breaking under compression, measured in [kPa].
<b>CrossSection</b>	Product cross section profile.
<b>Edges</b>	Product edge profile.
<b>Facing</b>	Describes what material is used for the facing.
<b>StandardThickness</b>	Thickness range measured in [mm].

### 3.1.3 Manufacturer Parameters

<b>BoardSizes</b>	Thermal insulation board sizes available, measured in [mm].
<b>ThermalConductivityOptions</b>	Thermal conductivity according to insulation thickness, measured in [W/mK].
<b>Uses</b>	Roofing systems the thermal insulation underneath the waterproofing layer can be used in.

### 3.1.4 IFC Parameters

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

<b>Finish</b>	Finish selection for this object. Here specification of the surface finish for informational purposes.
<b>FireRating</b>	Fire rating for this object. It is given according to the national fire safety classification.
<b>MassDensity</b>	Material mass density, usually measured in [kg/m <sup>3</sup> ].
<b>Material</b>	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
<b>SpecificHeatCapacity</b>	Specific heat of the products of combustion: heat energy absorbed per temperature unit. Usually measured in [J/kg K].
<b>SurfaceSpreadOfFlame</b>	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.
<b>ThermalConductivity</b>	The rate at which thermal energy is transmitted through the material. Usually in [W/mK].
<b>ThermalIrEmissivityBack</b>	Thermal IR emissivity: back side. Defines the fraction of thermal energy emitted per unit area to "blackbody" at the same temperature, through the "back" side of the material.
<b>ThermalIrEmissivityFront</b>	Thermal IR emissivity: front side. Defines the fraction of thermal energy emitted per unit area to "blackbody" at the same temperature, through the "front" side of the material.

### 3.1.5 COBie Parameters

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

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

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

### 3.2 Sika-Trocal® SGK

The Sika-Trocal® SGK product can be found in the following file:

nbl\_PolymcRfingMbrnes\_SikaTrocal\_SikaTrocalSGK

Parameters included in the Sika-Trocal® SGK product are as follows:

#### 3.2.1 National BIM Library Parameters

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

### 3.2.2 NBS Parameters

<b>Certification</b>	Product approval and certification by an accredited organisation.
<b>IntegralBackingFleece</b>	Indication whether the product requires an integral backing fleece.
<b>StandardThickness</b>	Standard thickness measured in [mm].
<b>StandardWidth</b>	Standard width measured in [mm].
<b>WaterVapourResistance</b>	Determination of water vapour transmission properties BS EN 1931.

### 3.2.3 Manufacturers Parameters

<b>BottomSurfaceColour</b>	Colour of bottom surface.
<b>DimensionStability</b>	Determination of dimensional stability BS EN 1107-2.
<b>EffectiveThickness</b>	Determination of thickness and mass per unit area BS EN 1849-2.
<b>Elongation</b>	Determination of tensile properties BS EN 12311-2.
<b>Flatness</b>	Determination of length, width and straightness BS EN 1848-2.
<b>FoldabilityAtLowTemperature</b>	Determination of foldability at low temperature BS EN 495-5.
<b>HailResistance</b>	Determination of hail resistance BS EN 13583.
<b>ImpactResistance</b>	Determination of resistance to impact BS EN 12691.
<b>JointPeelResistance</b>	Determination of peel resistance of joints BS EN 12316-2.
<b>JointShearResistance</b>	Determination of shear resistance of joints BS EN 12317-2.
<b>MassPerUnitArea</b>	Determination of thickness and mass per unit area BS EN 1849-2.
<b>RollLength</b>	Standard roll length measured in [m].

<b>RollWeight</b>	Standard roll weight measured in [kg].
<b>RollWidth</b>	Standard roll width measured in [m].
<b>RootPenetrationResistance</b>	Determination of resistance to root penetration BS EN 13948.
<b>Straightness</b>	Determination of length, width and straightness BS EN 1848-2
<b>StaticLoadResistance</b>	Determination of resistance to static loading BS EN 12730
<b>Surface</b>	Surface appearance.
<b>TearResistance</b>	Determination of resistance to tearing (nail shank) BS EN 12310-2.
<b>TensileStrength</b>	Determination of tensile properties BS EN 12311-2.
<b>TopSurfaceColourOptions</b>	Available colour options to top surface.
<b>UVExposure</b>	Method of artificial ageing by long term exposure to the combination of UV radiation, elevated temperature and water BS EN 1297.
<b>VisibleDefects</b>	Determination of visible defects BS EN 1850-2.
<b>WaterTightness</b>	Determination of water tightness BS EN 1928.

### 3.2.4 IFC Parameters

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

<b>AcousticRating</b>	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).
<b>Combustible</b>	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
<b>FireRating</b>	Fire rating for this object. It is given according to the national fire safety classification.
<b>Finish</b>	Finish selection for this object. Here specification of the surface finish for informational purposes.
<b>FlammabilityRating</b>	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
<b>FragilityRating</b>	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.
<b>Material</b>	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
<b>Reference</b>	Reference ID for this specified type in this project (e.g. type A-1 ).
<b>SurfaceSpreadOfFlame</b>	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.
<b>TotalThickness</b>	Thickness of the covering.

### 3.2.5 COBie Parameters

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

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

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

### 3.3 S-Vap 500E

The S-Vap 500E product can be found in the following file:

nbl\_PolythShts\_SikaTrocal\_SVap500E

**Parameters included in the S-Vap 500E product are as follows:**

#### 3.3.1 National BIM Library Parameters

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

### 3.3.2 NBS Parameters

<b>Certification</b>	Product approval and certification by an accredited organisation.
<b>RecycledContent</b>	Indication whether an additional virgin film should be specified to prevent the degrading of a recycled material.
<b>StandardThickness</b>	Standard thickness measured in [mm].
<b>WaterVapourResistance</b>	Determination of water vapour transmission properties BS EN 1931.

### 3.3.3 Manufacturers Parameters

<b>DurabilityAgainstAlkaline</b>	Methods for exposure to liquid chemicals, including water BS EN 1847.
<b>DurabilityAgainstArtificialAgeing</b>	Method of artificial ageing by long term exposure to elevated temperature BS EN 1296.
<b>Elongation</b>	Determination of tensile properties BS EN 12311-2.
<b>ImpactResistance</b>	Determination of resistance to impact BS EN 12691.
<b>JointShearResistance</b>	Determination of shear resistance of joints BS EN 12317-2.
<b>MassPerUnitArea</b>	Determination of thickness and mass per unit area BS EN 1849-2.
<b>RollLength</b>	Standard roll length measured in [m].
<b>RollWeight</b>	Standard roll weight measured in [kg].
<b>RollWidth</b>	Standard roll width measured in [m].
<b>Straightness</b>	Determination of length, width and straightness BS EN 1848-2
<b>TearResistance</b>	Determination of resistance to tearing (nail shank) BS EN 12310-2.
<b>TensileStrength</b>	Determination of tensile properties BS EN 12311-2.
<b>VisibleDefects</b>	Determination of visible defects BS EN 1850-2.

**WaterTightness**

Determination of water tightness BS EN 1928.

### 3.3.4 IFC Parameters

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

<b>AcousticRating</b>	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).
<b>Combustible</b>	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
<b>FireRating</b>	Fire rating for this object. It is given according to the national fire safety classification.
<b>Finish</b>	Finish selection for this object. Here specification of the surface finish for informational purposes.
<b>FlammabilityRating</b>	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
<b>FragilityRating</b>	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.
<b>Material</b>	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
<b>Reference</b>	Reference ID for this specified type in this project (e.g. type A-1 ).
<b>SurfaceSpreadOfFlame</b>	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 S-Vap 500E product and can be used to prepare COBie data schedules:

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

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

### 3.4 S-Vap 5000E SA

The S-Vap 500E product can be found in the following file:

nbl\_RBitmnMbrnVaprCtrlYr\_SikaTrocal\_SVap5000ESA

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

#### 3.4.1 National BIM Library Parameters

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

### 3.4.2 NBS Parameters

<b>BitumenModification</b>	Bitumen modification type.
<b>Certification</b>	Product approval and certification by an accredited organisation.
<b>MembraneCarrierMaterial</b>	Type of material used for the membrane carrier.
<b>RecycledContent</b>	Indication whether an additional virgin film should be specified to prevent the degrading of a recycled material.
<b>StandardThickness</b>	Standard thickness measured in [mm].
<b>WaterVapourResistance</b>	Determination of water vapour transmission properties BS EN 1931.

### 3.4.3 Manufacturers Parameters

<b>BottomSurfaceColour</b>	Colour to bottom surface.
<b>ColdBendingTest</b>	Determination of foldability at low temperature BS EN 495-5.
<b>DurabilityAgainstAlkaline</b>	Methods for exposure to liquid chemicals, including water BS EN 1847.
<b>DurabilityAgainstArtificial Ageing</b>	Method of artificial ageing by long term exposure to elevated temperature BS EN 1296.
<b>ElongationAtBreak</b>	Determination of tensile strength and elongation BS EN 29073-3/ISO 9073-3.
<b>ImpactResistance</b>	Determination of resistance to impact BS EN 12691.
<b>JointPeelResistance</b>	Determination of peel resistance of joints BS EN 12316-2.
<b>JointShearResistance</b>	Determination of shear resistance of joints BS EN 12317-2.
<b>MassPerUnitArea</b>	Determination of thickness and mass per unit area BS EN 1849-2.
<b>RollLength</b>	Standard roll length measured in [m].
<b>RollWeight</b>	Standard roll weight measured in [kg].

<b>RollWidth</b>	Standard roll width measured in [m].
<b>Straightness</b>	Determination of length, width and straightness BS EN 1848-2
<b>TearResistance</b>	Determination of resistance to tearing (nail shank) BS EN 12310-2.
<b>TensileStrength</b>	Determination of tensile properties BS EN 12311-2.
<b>TopSurfaceColour</b>	Colour options to top surface.
<b>VisibleDefects</b>	Determination of visible defects BS EN 1850-2.
<b>WaterTightness</b>	Determination of water tightness BS EN 1928.

### 3.4.4 IFC Parameters

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

<b>AcousticRating</b>	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).
<b>Combustible</b>	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
<b>FireRating</b>	Fire rating for this object. It is given according to the national fire safety classification.
<b>Finish</b>	Finish selection for this object. Here specification of the surface finish for informational purposes.
<b>FlammabilityRating</b>	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
<b>FragilityRating</b>	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.
<b>Material</b>	Main material of the covering, it should only be given, if no IfcMaterial class is assigned to the IfcCovering instance.
<b>Reference</b>	Reference ID for this specified type in this project (e.g. type A-1 ).
<b>SurfaceSpreadOfFlame</b>	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 S-Vap 5000E SA product and can be used to prepare COBie data schedules:

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

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

## 4.0 Abbreviations

<b>Bitmn</b>	Bitumen
<b>Brd</b>	Board
<b>Ctrl</b>	Control
<b>Cov</b>	Covering
<b>Lyr</b>	Layer
<b>Mbrne</b>	Membrane
<b>Mbrnes</b>	Membranes
<b>nbl</b>	national BIM library
<b>Polyth</b>	Polyethylene
<b>PIR</b>	Polyisocyanurate
<b>Polymc</b>	Polymeric
<b>R</b>	Reinforced
<b>Rf</b>	Roof
<b>Rfing</b>	Roofing
<b>Sgl</b>	Single
<b>Shts</b>	Sheets
<b>Sys</b>	System
<b>Vapr</b>	Vapour
<b>Wm</b>	Warm