



VEXCOLT (UK) LIMITED
VEXCOLT INTERNATIONAL LIMITED

Product Specification Clauses

Eurocodes - Expansion Control

FlexAtec 1210-A01 SERIES

SECTION	DETAIL
SPECIFICATION	PART 1 - GENERAL PART 2 - PRODUCTS PART 3 - EXECUTION

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PART 1 – GENERAL

1.01 SUMMARY

- A. Furnish Expansion Joint Systems in accordance with the drawings and general provisions of the Contract.

1.02 WORK INCLUDED

- A. Furnish complete Vexcolt Expansion Joint Systems
 - a. Interior & exterior floor/deck expansion joint systems
 - b. Fire rated assemblies

1.03 RELATED WORK

- A. Related work which is specified elsewhere.
 - a. Eurocode 0: Basis of Structural Design
 - b. Eurocode 1: Actions on Structures
 - c. Eurocode 2: Design of Concrete Structures
 - d. Eurocode 3: Design of Steel Structures
 - e. Eurocode 4: Design of Composite Steel and Concrete Structures
 - f. Eurocode 5: Design of Timber Structures
 - g. Eurocode 6: Design of Masonry Structures
 - h. Eurocode 7: Geotechnical Design
 - i. Eurocode 8: Design of Structures for Earthquake Resistance
 - j. Eurocode 9: Design of Aluminium Structures

1.04 REFERENCES

- A. Publications listed herein are part of this specification to the extent referenced. The criteria established in the specifications shall take precedence over the standards referenced herein.
 - a. British Standard BS 1155:2003: Natural rubber compounds for extrusion. Specification
 - b. European Norm EN ISO 14910-1:2006: Plastics. Thermoplastic polyester/ester and polyether/ester elastomers for moulding and extrusion. Designation system and basis for specifications
 - c. European Norm EN ISO 14910-2:2006: Plastics. Thermoplastic polyester/ester and polyether/ester elastomers for moulding and extrusion. Preparation of test specimens and determination of properties
 - d. ASTM D2628 - 91(2011): Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements
 - e. ASTM D3542 – 08: Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Bridges
 - f. AASHTO M297: Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Bridges

- g. Performance to ASTM Standards referenced in Section 2.02B below

1.05 DEFINITIONS

- A. Define industry and product terms as necessary.

1.06 SYSTEM DESCRIPTION

- A. Joint systems shall permit limited movement of joint without disengagement.
 - a. Specify x-axis joint movement (horizontal).
 - b. Specify y-axis joint movement (vertical).
 - c. Specify z-axis joint movement (lateral).
- B. Fire Rated Assemblies shall have been tested to either:
 - a. British Standard BS 476 wherein fire rating shall be 2 hours and 4 hours or not less than the fire rating of adjacent construction.
 - b. Underwriters Laboratories, in accordance with U.L 2079 and ASTM E 119 including hose stream test at full rated period. Underwriters Laboratories shall classify assemblies. Fire rating shall be 2 hours or not less than the fire rating of adjacent construction.

1.07 QUALITY ASSURANCE

- A. Manufacturer: Furnish assemblies from one (1) manufacturer with a minimum of five (5) years experience in the design, engineering and fabrication of expansion joint systems.
- B. Installer: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to the manufacturer of the system.

1.08 SUBMITTALS

- A. Manufacturer's specifications, technical data, installation instructions, and detail drawings for each system.
- B. Certificates or other documentation confirming BS/UL approved compliance with fire resistance rating of fire barrier assemblies.
- C. Sample of specified systems where required.

1.09 DELIVERY AND STORAGE

- A. Provide temporary protective covers on [anodized aluminium] [stainless steel] finished surfaces.
- B. Deliver joint systems to jobsite in new, clean, unopened cartons or crates of sufficient size and strength to protect materials during transit.
- C. Store components in original containers in a clean, dry location.

1.10 SEQUENCING

- A. Submittals shall be completed and submitted within a reasonable amount of time after award of subcontract.
- B. Subcontract for the work of this section shall be planned to allow sufficient time for manufacturer's production and delivery scheduling.

1.11 WARRANTY

- A. Standard Vexcolt International Limited warranty against material and manufacturing defects for a period of not less than one (1) year when installed in accordance with manufacturer's recommendations.

END OF SECTION

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. Vexcolt International Limited
 The Sidings
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 Ivybridge,
 Devon,
 England PL21 0EZ
 Tel: +44 (0)1752 894133
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- B. Substitutions: Not permitted.

2.02 MATERIALS

- A. Seal: Neoprene or EPDM Colours to RAL 7021 [Black]
- B. Material Performance

Property	UOM	ASTM	
		Test	Requirement
Tensile strength	Mpa	D 412	13.8
Hardness	Shore A	D2240	55 +/-5.0
Elongation at break	Min %	D 412	250%
Ageing: 72 hours at 20°C	Elongation change	D 573	20%
	Tensile change		20%
	Hardness change		10 points
Oil swell: 72 hours at 100°C	Weight change	D 471	45%
Ozone resistance: 72 hours at 40°C	Visual	D 1149	No cracks
Low temperature recovery	-40°C	Section 7d	88%
	-20°C		83%
	+100°C		85%

- C. Fire Barrier (optional): [FireFlex 2000 Intumescent System to BS 476] or [FireFlex 2100 Fire blanket to UL2079] or [FireFlex 2200 to UL 2079] required for indicated fire resistance rating.
- D. Fasteners, adhesives, accessories and other materials required for complete installation in accordance with the manufacturer's instructions.

2.03 JOINT SYSTEMS FOR FLOORS

A. Extruded seal systems: FlexAtec 1210 Series.

1. Heavy Duty Flush Mounted Floor/Deck Systems

Extruded seal systems, floor/floor 1210-A01

2.04 FABRICATION

A. Field assemble components provided in standard lengths.

B. Fabricate special transitions and corner fittings as required.

END OF SECTION

PART 3 - EXECUTION

3.01 VERIFICATION

- A. Verify that structural gap and blockout dimensions are in conformance with manufacturer's submittal data.

3.02 INSTALLATION

- A. Joint systems: Install in accordance with manufacturer's instructions. Align work plumb, level and flush with adjacent finish levels. Rigidly anchor to substrate. Allowances should be made where actual structural gap at time of installation varies from nominal design gap.
- B. Fire Rated Assemblies: Where required, install to manufacturer's instructions.
- C. Waterproofing membrane: Where required, install to manufacturer's instructions.

3.03 PROTECTION AND CLEANING

- A. Protect installation from damage by work of others.
- B. At completion of the installation, clean exposed surfaces with non-solvent cleaner.

END OF SECTION