Technical Data Sheet

BluSeal JS50

EPDM JOINT SEALING MEMBRANE

BluSeal JS50 is an adhered membrane joint system used together with BluSeal AD50 to form a flexible joint sealing solution.

BluSeal JS50 is an adhered, high elasticity product suitable for civil engineering applications. BluSeal JS50 incorporates resilient EPDM polymers to form a durable membrane which has high movement capacity, tolerance to extreme temperature variations and ultra-high bond capabilities in a range of applications.

Application Advantages

- Easy and fast application
- Suitable for bonding to damp surfaces
- Solvent and silicone free
- Odourless
- Bonds to steel, concrete and other building surfaces

Lifecycle Advantages

- High movement capacity
- Durable
- Extreme temperature variation tolerant
- Ultra high bond capabilities in a range of applications

About the Product

BluSeal JS50 is an EPDM bonded joint sealing system which can be applied to form a flexible, easy to apply joint seal. BluSeal JS50 is designed to be used in conjunction with BluSeal AD50 to create an ultra-high movement capable joint seal for fixing between structural elements where large differential deflections are expected. Due to its robust nature and ability to be applied in damp environments, BluSeal JS50 is particularly suitable for the most challenging civil engineering applications.

Application Solutions

- Carpark deck joints
- Bridge joints
- Roof sealing
- Tunnel joint sealing
- Basement waterproofing
- Abutment joint sealing

Project Specification Clause

EPDM JOINT SEALING MEMBRANE - The joint sealing membrane used for this project shall be an adhered membrane strip which requires only careful application to form a durable joint sealing product. It shall be prefabricated and tested to achieve the technical requirements outlined in the technical data table detailed below in accordance with the standards shown. BluSeal JS50 manufactured by Bluey Technologies or similarly performing products may be accepted for use on this project.

Project Examples

Carpark construction and repair, tunnels and underground environments, jetty construction and repair, airport construction, bridge repair, building repairs, dam construction and repair, concrete structures, road repairs, sea wall repair and maintenance.

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Application Specification

CONCRETE PREPARATION

1.1 All defective host substrate must be removed prior to application. Defective material includes cracked or structurally weakened surfaces and also chloride contaminated and carbonated concrete. The surfaces shall not contain substances containing tar, as otherwise the adhesion is reduced. The application on fresh bitumen is not recommended for the same reasons. On old bitumen an adhesion can be reached of maximum 0.45 N/mm^2, as long as the surface is free of grease. A concrete corrosion expert must be consulted for critical projects or structural applications.

1.2 Host concrete must be roughened and aggregate exposed to ensure good bond. High pressure water blasting or mechanical chipping of the surface is recommended for this purpose.

1.3 All surfaces must be free of dust, oils and surface contaminants. This may require steam cleaning or high pressure water blasting if site conditions permit.

PRIMING

2.1 For permeable surfaces and to achieve higher bond in general, please contact Bluey for a range of suitable primers.

PLACEMENT

3.1 Placement of BluSeal AD50 can be completed using hand cartridges.

APPLICATION

4.1 Sealing of construction joints and control joints BluSeal AD50 adhesive is applied onto the cleaned subsurface with a manual caulking gun in loops of 15 mm thickness. Spreading the adhesive on the subsurface should be carried out with a notched trowel in a way that an even layer of adhesive of approx. 1.5 mm is applied to the substrate to be sealed.

4.2 The BluSeal JS50 shall be thoroughly cleaned on the both sides to remove any dust or contaminates.

4.3 The sealing membrane is then positioned on the adhesive layer and rolled into the adhesive from the centre outwards with a wide draw roll. Press down such that no air bubbles are left under the membrane but at the same time no adhesive is pressed out at the free edges. Any adhesive outside of the membrane must be removed before sealing.

4.4 Apply second coat of BluSeal AD50 at approx 1.5mm thick, over the leading edge of the BluSeal JS50 tape.

4.5 The BluSeal JS50 must be cut to fit the length of the joints. The long edges of the BluSeal JS50 must be bonded along the whole surface area for a width of 100 mm. The overall width of the membrane must be selected to fit the intended application.

CURING

5.1 BluSeal AD50 cures by reaction with atmospheric moisture. The reaction starts at the surface and progresses towards the centre of the cross section. The curing speed depends on the relative humidity and the temperature. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly.

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Product Data

Please refer to Important Notice on following page

Material Basis	EPDM
Thickness	1mm
Width	100mm, 150mm, 200mm, 250mm, 300mm, 400mm, 500mm, 1000mm, 1500mm

TESTED CHARACTERISTIC	STANDARD	RESULT
Shore A Hardness	DIN ISO 7619-1	65 ± 5
Temperature Resistance		150°C Long-term 220°C Short-term
Tensile Strength	DIN EN 12311-2	8.7MPa Longitudinal 8.6MPa Lateral
Elongation at Break	DIN EN 12311-2	531% Longitudinal 483% Lateral
Joint Peel Strength	DIN EN 12316-2	69N/50mm
Joint Shear Resistance	DIN EN 12317-2	282N/50mm
Resistance to Impact	DIN EN 12691	300mm
Resistance to Static Load	DIN ISO 7619-1	25kg
Tear Resistance	DIN EN 12310-2	40N Longitudinal 64N Lateral
Resistance to Root Penetration	DIN EN 13948	Passed
Dimensional Stability	DIN EN 1107-2	0.08% Longitudinal 0.05% Lateral
Foldability at Low Temperatures	DIN EN 495-5	-60°C
Uv Exposure	DIN EN 1297	Passed
Exposure to Liquid Chemicals	DIN EN 1847	Passed
Hail Resistance	DIN EN 13583	17m/s Rigid support 37m/s Flexible support
Vapour Diffusion Resistance	DIN EN 1931	70000μ
Ozone Resistance	DIN EN 1844	Passed
Exposure to Bitumen	DIN EN 1548	Passed
Reaction to Fire	DIN EN 13501-1	Class E
External Fire Performance	ENV 1187	Passed
Testing for Artificial Ageing	DIN EN 1296	Passed

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Contact Bluey

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IMPORTANT NOTICE

This Technical Data Sheet is provided for general information and instruction only. The properties and characteristics set out herein represent typical testing results under laboratory conditions. Results of actual product characteristics may vary slightly. Site-specific and project-specific conditions may affect product performance, including without limitation: surfaces, environmental conditions, contact conditions, storage conditions, storage timeframes, weather, and climatic or seasonal conditions. Not all product parameters are batch tested as part of the manufacturing quality control process, and performance may vary between batches.

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