

EFFISUS SELAGEM³

DESCRIPTION

The Effisus Selagem3 is an integrated gutter joint sealing system with 3 waterproofing levels. The system is composed by the Effisus 2Bond DS Tape, overlaid by the Effisus Ecofacade Membrane with 1.3mm thickness adhered to the gutter surface with the Effisus Bonding KF Adhesive. The system is closed with the Effisus Block JP Sealant.

1. EFFISUS ECOFACADE MEMBRANE

Elastomer sheet for waterproofing from Ethtlen-Propylen-Dien-Terpolymer (EPDM), homogeneous, cured, non-backed.

TECHNICAL DATA

Technical data	Standard	Unit	Value	Expression of results
Thickness	EN 1849-2	mm	1.30	
Length		m	≥ 20	MLV
Width		mm	100 – 1300 ± 0,2%	MDV
Directness		-	Pass	
Mass per unit area		g/m ²	1625 ± 25%	MDV
Reaction to fire	EN 13501-1		Class E	Pass
Resistance to water passage	EN 1928 B		W1	
Water vapour propertires μ	EN 1931	-	60.000 ± 20.000	MDV
Resistance to air passage	EN 12114	m ³ /(m ² hx50 Pa)	≤ 0,1	MLV
Tensile strength	EN 12311-1	N/50mm	≥ 450	MDV
Elongation	EN 12311-1	%	≥ 500	
Tear resistance	EN 12310-1	N	≥ 90	MDV
Dimension stability	EN 1107-2	%	≤ 0,5	MLV
Foldability at low temperature	EN 1109	°C	≤ -30	MLV
Weathering by combined continuous stress trough UV-exposure and high temperature according to appendix C	Tensile strength	N/50mm	567 ± 90	MDV
	Elongation	%	450 ± 15%	MDV
	Resistance to water passage	Class W1	W1	

2. EFFISUS 2BOND DS TAPE

Effisus 2Bond DS Tape is pure and advanced technology with active sealants with a removable siliconized release liner on each side. Designed to bond two surfaces, even two surfaces made of two or more dissimilar materials.

Effisus 2Bond DS Tape creates a tight, permanent, waterproof seal.

Effisus 2Bond DS Tape remains flexible to temperatures as low as -57°C making it virtually impossible to thermally shock the seal causing a leak. Effisus 2Bond DS Tape to a wide range of surfaces including EPDM, TPO, most PVC, CSPE/ Hypalon, CPE, SBS, APP modifieds, asphalt BURs, coal tar BURs, tiles, shingle, coated and non-coated aluminum and metal roofs, galvanized steel, gypsum board, wood, polyethylene, propylene, polystyrene, fiberglass, brick, concrete, masonry, OSB board, shielding membranes, etc.

TECHNICAL DATA

Technical data	
Adhesion	8.64 kg/ in width
Application temperature	66°C to -29°C ambient
Available widths	Up to 121.9cm as special order
Dielectric strength	Exceeds 12KV
Elongation	> 500% ± 100
Insulation resistance	10 to the 6th power megahoms
Low temperature flexibility	12.7mm radius at -34.4°C
Permanence	0.001 perms maximum
Pliability	No cracks in membrane
Shelf life	Up to 5 years
Standard case quantity	30.5 sq. meters per case
Standard roll sizes	1.5cm, 2.5cm, 5cm, and 7.6cm x 15.2m
Temperature flexibility range	-57°C to >+93°C
Total thickness	Standard 30 mils (0.77mm) or 60 mils (1.54mm)
Water vapour test (ASTM 96B)	0.005grs/254cm ² /24hrs/37°C

Surface Preparation

Surface must be clean and dry. Moisture, dust, dirt, or other foreign matter should be removed. Remove oil and grease, etc. with Effisus Setup EC Cleaner or a non residue cleaner such as acetone or lacquer thinner. Remove salt and other contaminants.

Application

To apply the Effisus 2Bond DS Tape, remove one side of the release liner and apply to the surface to be protected or bonded. Rub or roll with pressure using your hand or a steel roller to activate bonding process. Remove the second release liner and apply second surface to tape, apply pressure. Effisus 2Bond DS Tape also can be used as a putty. Remove both release liners and roll into a rope. Place over gap and mold to seal opening. This material may be applied to clean dry surfaces from 66°C to -29°C ambient. Treat surface with Effisus Coat EP Primer for installations from 5°C to -29°C ambient.

3. EFFISUS BONDING KF ADHESIVE

Building bonding paste for bonding Effisus Ecofacade membranes (water vapour-permeable) in 600 ml foil pouch. Especially suitable for rough, uneven surfaces.

TECHNICAL DATA

Surfaces

All conventional building surfaces as well as PVC, aluminium, wooden windows and for adhering sealing sheets together.

Clean, dry, non-greasy, capable of bearing.

Bonding Temperature

≥ 5°C

In combination with Effisus Coat NP Primer, sealing can be carried out at temperatures down to –10°C and on moist (absorbent) building surfaces. Only absorbent surfaces need to be primed. Non-absorbent surfaces must be clean, dry and non-greasy. If sealing is carried out at low temperatures, make absolutely sure no ice can form on the substructure. If insufficient adhesive strength and distribution make it impossible to apply the primer to a damp substructure, the moisture content of the structure is still too high. In this case, bonding is not advised. It is not possible to adhere onto damp porous concrete since the load-bearing capacity is not guaranteed.

Application of Effisus Bonding KF Adhesive

Only on the substructure. Squeeze 2-3 small strips (approx. 2 cm apart) onto the surface from the pouch pistol.

Sealing

Place the sheeting on the substructure and roll on firmly with the steel hand roller until the bonding cement has been distributed to a coating of around 1 cm thick and 8 cm wide. Corrections can be made when the sealing is fresh! (Remove the sealing sheet and press on again) The sheets should not be subject to strain when sealed.

Sealing width: At least 8cm.

No additional mechanical fixing is necessary. If it is not possible to work with a sealing width of 8 cm, the sealing width may be reduced to 4 cm. With such a reduced width, however, it is especially important to ensure the adhesive is evenly distributed over the whole area. The fitter bears responsibility for ensuring that when freshly sealed the sheets cannot slide off the substructure through their own weight or other influences. In order to guarantee this, it may be necessary to use additional mechanical fixing! A further possibility to increase the initial adhesive strength is to remove the pressed on sheeting from the substructure again, allow the adhesive to ventilate for a short while and then press on firmly again with the roller.

Cement yield

Approx. 100g/metre run with an application width of 8 cm.

One foil pouch is sufficient for approx. 7 m sealing (8 cm width).

Storage

Cool, dry, frost-free, keep out of direct sunlight.

Risk notice

Effisus Bonding KF Adhesive is highly inflammable, keep away from fire, do not inhale vapours, do not smoke.

4. EFFISUS BLOCK JP SEALANT

Effisus Block JP Sealant is a single-component silicon rubber with a maximum emission concentration below 1% and a medium elasticity modulus. Under the influence of air moisture Effisus Block JP Sealant cures into a permanently elastic and weather resistant sealant virtually odour-free.

TECHNICAL DATA

Technical data	
Curing system	Neutral
Consistency	Highly viscous, stable
Density, g/ml, approx.	1.4
Skin formation time*, min., approx.	10
Time until tack-free*, min., approx.	30
Through curing (cross-linking speed) after 24h, mm, approx.	2
Through curing (cross-linking speed) after 7 days, mm, approx.	7
Volumetric change (DIN 52451), %, approx.	5
Shore-A-Hardness (DIN 53505)*, approx.	18
Recovery capacity (EN 27389), %, approx.	95
Admissible overall deformation, %	25
Processing temperature, °C	+5 to +40
Thermal stability, °C	-50 to +150

*at a temperature of 23°C and a relative humidity of 50%

Mechanical properties of a 2mm thick layer according to DIN 53504

Modulus 100%, Mpa < 0.4
 Tensile strength, Mpa > 1.0
 Elongation at failure, % > 500

Mechanical properties of a test specimen according to EN 28339

Modulus 100%, Mpa < 0.4
 Tensile strength, Mpa > 0.5
 Elongation at failure, % > 300

Standards

The material complies with the requirements of DIN 18540 and DIN 18545 part 2 group E.

OTHERS

Properties

Once the reaction has run its course, Effisus Block JP Sealant is highly resistant to UV-ageing and all weather conditions.

Effisus Block JP Sealant is resistant to short-term exposure to diluted acids and alkalines (<5%) as well as customary household cleaners. Effisus Block JP Sealant bonds very well with masonry, glass, enamel, tiles, glazed ceramics, various synthetic materials and smooth metals. Its antifungal component provides protection against most microorganisms potentially appearing in damp interiors.

Fields of application

Effisus Block JP Sealant is suitable for sealing flue joints, flashing or connecting sheets, domelight apertures. Aerials, ducts, connecting joints between metal, wood or PVC frames and mineral construction materials. Sealing of glass and metal, wood or PVC frames as well as many other materials. The joint paste is also suitable for the additional sealing of sheet edges (Effisus Braze Membrane and Effisus Ecofacade Membrane), particularly if the sheets were connected with Effisus Bonding KT Adhesive.

Usage

Preparatory treatment of adhesive surfaces:

Surfaces must be clean, capable of bearing, dry, and free from dust and grease. Clean pore-sealed, smooth surfaces using a clean, lint-free cloth or industrial crepe. Observe the cleaner's flash off time. If used on synthetic materials and coatings, please ensure that the solvent does not harm the surface. Prime surfaces thoroughly, if required. On nonferrous metals (copper, brass, etc.), interdependent reactions may occur.

Primer

On absorbent, porous substrates such as plaster and timber the adherent surfaces must be pretreated with silicon primer. Apply the silicon primer using a clean, soft hair brush. On highly absorbent substrates such as aerated concrete, apply a second coat after the first has dried. Please note any further information provided in the silicon primer technical data sheet.

Joint formation

The joint formation needs to comply with the standards DIN 18540 (construction dilatation and connecting joints) or, respectively, DIN 18545 (glazing). For joints with a low overall deformation (<5%), a triangular joint may also be created. Apply a back-filler, if required (closed-cell polyethylene foam). The back-filler needs to be compatible with the joint sealant and may not be water-absorbent. The deformation on the joint sealant may not be hampered in an inadmissible manner. Back-fillers containing bitumen, tar, oil or softeners are not suitable. Once installed, the back-filler needs to provide the required stability for the application and smoothing of the joint sealant.

Smoothing compound

Only neutral smoothing compounds should be used, which do not cause Effisus Block JP Sealant to discolour and do not leave a film on their surface. Bonding with the sides of the joint must not be impaired.

Applying sealant

Effisus Block JP Sealant must be applied to the joint, evenly and free of bubbles, within the processing temperature. If the substrate is pretreated with a primer, the sealant should not be applied until the primer's drying time has passed. A good contact must be made with the sides of the joint by pressing in the sealant and smoothing (tooling). Use as little smoothing compound as possible. The time taken for the sealant to finish reacting depends, among other things, on the quantity of sealant and the ambient temperature. When fresh, surplus material and soiling can be removed using a cleaner, e.g. petroleum ether. Cured material can only be removed using a silicon remover or mechanically. Please note any further information provided on the silicon remover technical data sheet.

OTHERS

Paint Compatibility

Effisus Block JP Sealant is compatible with the usual paints in the sense of DIN 52452 Part 4.

Due to the low deformation capacity of the paint film, we do not recommend that you paint over the whole surface of the sealant. The cracks that may occur in the coating during joint movement can damage the joint seal.

Note

Due to the large number of possible applications and the natural diversity of substrate properties, above all in natural stones (marble, granite, slate, etc.), it is necessary to carry out preliminary tests first. These preliminary tests must be repeated at reasonable intervals as the composition of the paints and contact materials can change.

Consumption

Approx. 12m/cartridge for joint with the dimensions 5 x 5mm.

Approx. 3m/cartridge for 10 x 10mm joints.

Approx. 2m/cartridge for 15 x 10mm joints.

Approx. 1m/cartridge for 20 x 15mm joints.

Range of colours

Black

Form of supply

310ml cartridges

Storage and durability

Kept unopened, in the original container and in a cool, dry place, Effisus Block JP Sealant can be stored for at least 6 months.

Limitations of use

Do not use Effisus Block JP Sealant in the following joints: joints which are highly trafficked (by people or vehicles), which are in direct contact with food, for structural joints, underwater joints and for sealing aquariums. Effisus Block JP Sealant does not bond with: PTFE (Teflon), polyethylene, PU foam and silicon.

Occupational health and safety

Contains 2-butanonoxim, can cause allergic reactions. Avoid swallowing, lengthy or repeated contact with the skin/eyes. If accidentally it gets in contact with the skin, rub or scrub it off the affected areas and then rinse off with plenty of water. If splashes get in the eyes, hold the eyes wide open and rinse with plenty of water. Consult an ophthalmic optician if irritation persists.

As small quantities of a volatile, irritable substance are released during the processing/curing, it must only be used in well ventilated rooms. We cannot guarantee that damage to health will not occur if high concentrations of this substance are continuously inhaled. Do not allow Effisus Block JP Sealant to get into the sewers. Keep out of reach of children.

Request EU safety datasheet to 91/155/EC!

Notes for users

The information contained in this document is the result of our findings and experience. It is given the best of our knowledge and is intended for use in advising our costumers. However, it is not binding. The information does not replace preliminary tests, which are indispensable for the planned use of the respective product. We reserve the right to make changes for the purposes of improving our products and progress. Furthermore, the user must always check whether the product complies with the applicable statutory regulations and if necessary obtain the required approvals. The user should ensure that they have the respective latest version of this document.

Accompanying Document

Edition 06-2012/10-04-2012/September 2009/January 2006

Version

V 1.2 – AP – 21/04/2015 6/6