

COLPHENE BSW V

COLPHENE BSW V is a high-performance waterproofing membrane composed of SBS modified elastomeric bitumen with a composite reinforcement.

The topside is covered with specially engineered silicon dioxide crystals and the self-adhesive underside is covered by a silicone release film.

Thanks to its special formulation and composition **COLPHENE BSW V** has excellent, continuous and homogenous bond to poured structural concrete to increased resistance to hydrostatic pressure with superior mechanical properties.

Its unique design, including the **DUO SELVEDGE** technology, allows welding of side laps using a torch or a hot-air welder.

User application

COLPHENE BSW V is a pre-applied membrane designed for vertical blindside waterproofing applications (below grade and tanking works).

All the applications are described in **SOPREMA's** Technical Guidelines in force.

Composition

	COLPHENE BSW V
Reinforcement	Composite
Binder	Elastomeric bitumen: blend of selected bitumen and SBS* thermoplastic polymers
Thickness (EN 1849-1)	3.0 mm ($\pm 5\%$)
Weight (1849-1)	3.8 kg/m ²
Topside	Specially engineered silicon dioxide crystals
Underside	Self-adhesive protected by a silicone release film
Overlap (DUO technology)	100 mm covered with a release film (55 mm self-adhesive + 45 mm thermofusible film)
*According to UEAtc directives concerning the normalization of waterproof elastomeric SBS bitumen coverings	

Packaging

	COLPHENE BSW V
Dimensions of the roll	10 m x 1 m
Weight of the roll	about 38 kg
Storage	Rolls must be stored upright, with the selvedge side on top If the product is stored outdoors, cover them with an opaque protective cover after removal of the delivery packaging
Roll lengths are given with a tolerance of < 1 %. Width of roll is given with a tolerance of 1% (UEAtc). Rolls must be stored upright on flat ground. During storage, protect the rolls against moisture. In cold weather, we recommend that the rolls be kept at a minimum temperature of + 2°C (+ 36 °F) for at least 5 hours before installation.	

Characteristics (outside CE marking)

Properties	Test method	COLPHENE BSW V
Tensile strength at peak load, MD/XD	ASTM D5147	≥ 15 kN/m / 13.5 kN/m
Elongation at break, MD/XD	ASTM D5147	60 % / 65 %
Tear strength, MD/XD	ASTM D5147	575 N / 500 N
Low temperature flexibility	ASTM D5147	Unaffected at -18 °C
Resistance to puncture	ASTM E154	≥ 1000 N
Water vapour transmission	ASTM E96 method B	< 2.5 ng / Pa·s·m ² (<0.04 perm)
Water absorption	ASTM D570	< 0.9 %
Peel strength Adhesion to poured structural concrete	ASTM D903	≥ 4200 N / m
Resistance to hydrostatic head	ASTM D5385	≥ 110 m
Lateral water migration	ASTM D5385 modified	≥ 110 m
Gas permeability (methane) - cm ² /s.Pa - cm ² /atm	ASTM D1434	< 60 (E ⁻¹²) < 60 (E ⁻⁰⁷)
Radon gas diffusion coefficient D including joint	K124/02/95	1.4 (±0.1) x 10 ⁻¹¹ m ² /s 1.3 (±0.1) x 10 ⁻¹¹ m ² /s

(values are subject to variation not exceeding 15 %)

Installation

COLPHENE BSW V is installed in vertical strips of 5 m maximum onto acceptable substrate. **COLPHENE BSW V** membrane is adhered to substrate by peeling off the silicone release film.

Side lap joints must be a minimum of 100 mm and end lap joints must be a minimum of 150 mm. Apply even pressure using a membrane roller over the entire surface of the membrane to ensure good adhesion.

Membranes overlaps are sealed, by heat-welding, with a gas torch or using an electric hot-air welder. The uppermost edge of each strip must be temporary mechanically fastened to substrate using round plates ≥ 40 mm diameter and appropriate fasteners for base material every 250 mm on center.

Application temperature: above -10°C

DUO SELVEDGE: over the entire width of **DUO SELVEDGE**, 55 mm of the surface is covered with self-adhesive bitumen. The remaining surface of the selvedge 45 mm is covered by a thermofusible film to seal overlap by heat-welding with a gas torch or an electric hot-air welder.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

Special indications

Hygiene, health and environment:

The product does not contain any substance likely to be detrimental to health or to environment and complies with generally admitted Health and Safety Requirements. For further information, please refer to relevant Safety Data Sheet.

Traceability:

Product traceability is ensured through a manufacturing code present on the packaging.

Quality control:

SOPREMA has always attached the highest importance to the quality of its products, to the respect of environment and people. For this reason, we apply an integrated management of the Quality and Environment certified **ISO 9001** and **ISO 14001**.

CE marking

CE
1119
COLPHENE BSW V
SOPREMA 14 rue de Saint-Nazaire – CS 60121 67025 STRASBOURG cedex
14 Construction Product Regulation (CPR) Declaration of Performance: DoP n° WPBEX249 Certificate of Factory Production Control: 1119-CPR-13136, 13137, 13138 (EN 13969)
EN 13969 Membrane composed of modified elastomeric bitumen and composite reinforcement. Topside is coated with specially engineered silicon dioxide crystals and the underside is protected by a silicone release film. Dimensions: 10 m x 1 m x 3.0 mm. Must be laid entirely through self-adhesion (except 2 nd part of overlap). For below grade and tanking works.

Essential characteristics	Performances	Harmonised Technical Specification
Reaction to fire (EN 13501-1)	E	EN 13969:2004 + A1:2006
Root resistance (EN 13948)	NPD	
Peel resistance of joints (N / 50 mm) (EN 12316-1)	≥ 100	
Watertightness – Method B (EN 1928)	Conform	
Resistance to impact – Method A (mm) (EN 12691) Method A is on rigid substrate (aluminium)	≥ 650	
Shear resistance of joints (N / 50 mm) (EN 12317-1)	≥ 560	
Flexibility at low temperature (°C) (EN 1109)	≤ -16	
Tensile properties: (EN 12311-1) Tensile strength L x T (N / 50 mm) Elongation L x T (%)	800 x 700 (±20 %) 45 x 45 (±15 abs.)	
Resistance to static loading (kg) Method B (EN 12730) Method B is on rigid substrate (concrete)	≥ 10	
Resistance to tearing (nail shank) M x C (N) (EN 12310-1)	350 x 350 (±100)	
Durability (EN 1296 / EN 1928) Watertightness after ageing	Conform	
Dangerous substances (Notes 2 and 3)	Complies	

Note 2: This product does not contain asbestos or tar constituents.

Note 3: Since there is no European test method available, no performance declaration for leaching behavior can be made. It must be made according to national rules in force in the place of use.

Additional characteristics	COLPHENE BSW V
Resistance to static loading (kg) Method A (EN 12730) Method A is on smooth substrate (EPS)	≥ 20
Durability (EN 1296 / EN 1110) (°C) Flow resistance at elevated temperature after ageing	≥ 70
Watertightness (EN 1928) – Method B (kPa) & including joint New and after ageing test (EN 1296) (6 months at 70±2°C)	≥ 600