

PRODUCT DATA SHEET

DESCRIPTION

COLPHENE® BSW H 4.5 is a high performance, fully bonded composite sheet membrane designed for blind side waterproofing assemblies in pre-applied below grade waterproofing applications. It is composed of a proprietary blend of Elastomeric Styrene-Butadiene-Styrene (SBS) modified bitumen combined with Ultra-High Strength (UHS), dimensionally stable reinforcement system (heavy duty non-woven polyester). The top surface is treated with a Specially Engineered Silicon Dioxide Crystals while the underside is laminated with a distinct synthetic film. The unique design of COLPHENE® BSW H 4.5 and the unique DUO SELVEDGE technology allows for homogenous bond to structural concrete, resistance to hydrostatic pressure, lateral water migration and precise alignment of side-laps to be heat-welded using propane torch or a hot air gun.

STORAGE & HANDLING

COLPHENE® BSW H 4.5 should be stored away from the source of ignition. Wear necessary Personal Protective Equipment. Partly used material should be placed in a sealed container and stored in a well-ventilated area. Open containers should be kept tightly closed, away from fire or open flame.

USER APPLICATION

COLPHENE® BSW H 4.5 is used in various applications for substructure waterproofing. All the application guidelines are described in SOPREMA's Technical Manuals in force.

ADVANTAGES

- Tenacious and coherent bond strength to poured concrete
- An exclusive and homogenous "Duo Selvedge" Technology for the safest installation
- Durable value engineering solution for sub-structure waterproofing
- Resistant to aggressive chemicals, radon gas diffusion and methane gas permeability
- Robust to static and kinetic forces with crack bridging ability
- Watertight, high resistance to hydrostatic pressures and lateral water migration
- UV and elevated temperature exposure capabilities



HEALTH, SAFETY & ENVIRONMENT

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

TRACEABILITY

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

QUALITY MANAGEMENT

SOPREMA always recognises as a high level of importance the quality of the products, the environment and safety. For this reason, we operate independently monitored Quality Management Systems in line with ISO 9001:2015.

COMPOSITION & PACKAGING

PROPERTY	STANDARDS	COLPHENE® BSW H 4.5
Cold flexibility	BS EN 1109 : 2000	- 30 °C
Colour	-	Black
Thickness (Gross)	DIN EN 1849-1	4.5 mm
Roll dimension	-	8 x 1 m
Roll weight	-	44 kg
Rolls per pallet	-	25
Underface	-	Thermofusible Film
Surface	-	Specially Engineered Silicon Dioxide Crystals
Side-Lap Width	-	12 cm

TECHNICAL PROPERTIES

PROPERTIES	STANDARDS	COLPHENE® BSW H 4.5
Tensile strength, MD / CMD	DIN EN 12311-1	1521 / 1003 N / 5cm (UEAtc)
Elongation, MD / CMD	DIN EN 12311-1	47 / 47 % (UEAtc)
Tensile strength, MD / CMD	ASTM D5147	31 / 23 kN / m
Elongation, MD / CMD	ASTM D5147	85 / 89 %
Tear strength (Nail), MD / CMD	DIN EN 12310-1	351 / 322 N
Tear strength (Notch), MD / CMD	DIN EN 12310-1	943 / 661 N
Resistance to puncture, MD / CMD	ASTM E 154	1556 N
Radon gas diffusion coefficient	ISO/TS 11665 - 13	2.9 (± 0.3) x 10 ⁻¹¹ (m ² /s) @ 20 °C
Methane gas transmission	ISO 15105 - 1	64 cm ³ / (m ² .d.bar) @ 23 °C
CO ₂ gas transmission	ISO 15105 - 1	356 cm ³ / (m ² .d.bar) @ 23 °C
Softening point	ASTM D36	116 °C
Penetration	ASTM D5	29 dmm
Heat resistance @ 2 Hrs.	ASTM D5147	105 °C
Mass per unit area	ASTM D1849-1	4.4 kg / m ²

Conforms to Norms: EN 13969 / EN 13707 : 2004 + A2 : 2009 / EN 13969 : 2004 + A1 : 2006

(All values are Nominal), All published properties are nominal and considered by SOPREMA to be true and accurate, These nominal values are subjected to variation not exceeding 15% based on statistical data obtained internally and verified by internationally accredited independent laboratories.

TESTING AND CERTIFICATIONS



SUSTAINABILITY AND ENVIRONMENT

