

PRODUCT DATA SHEET

TECHNICAL DATA SHEET 212105ME002
SUPERCEDES: TECHNICAL DATA SHEET 170809ME1E

DESCRIPTION

COLPHENE® BSW UNILAY HP is a high performance, fully bonded composite sheet membrane designed for blind side waterproofing assemblies in pre-applied 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 double reinforcement system (heavy duty non-woven polyester combined with specific fleece). 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 UNILAY HP and the 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 UNILAY HP 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 UNILAY HP 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 UNILAY HP
Colour	-	Black
Thickness (Gross)	ASTM D5147	4.5 mm (-5 % ; +5 %)
Roll dimension	-	8 x 1 m
Roll weight	-	40 kg
Rolls per pallet	-	25
Underface	-	Thermofusible film
Surface	-	Specially Engineered Silicon Dioxide Crystals
Side-Lap Width	-	-

TECHNICAL PROPERTIES

PROPERTIES	STANDARDS	COLPHENE® BSW UNILAY HP
Tensile strength @ peak load, MD / CMD	ASTM D5147	26.5 / 21.5 kN / m
Elongation @ break, MD / CMD	ASTM D5147	70 % / 80 %
Tear strength, MD / CMD	ASTM D5147	875 N / 700 N
Resistance to puncture, MD / CMD	ASTM E154	1650 N
Radon gas diffusion coefficient D	K124 / 02 / 95	$2.1 (\pm 0.2) \times 10^{-11} \text{ (m}^2/\text{s) @ } 20^\circ\text{C}$
Methane gas transmission	ISO 15105 - 1	$68.3 \text{ cm}^3 / (\text{m}^2 \cdot \text{d} \cdot \text{bar})^\circ\text{C}$
CO ₂ gas transmission	ISO 15105 - 1	$352 \text{ cm}^3 / (\text{m}^2 \cdot \text{d} \cdot \text{bar}) @ 23^\circ\text{C}$
Water vapour transmission	ASTM E96	$< 2.1 \text{ ng} / (\text{Pa} \cdot \text{s} \cdot \text{m}^2)$
Water absorption	ASTM D570	$< 0.5 \%$
Peel strength Adhesion to poured structural concrete	ASTM D903	4500 N / m
Resistance to hydrostatic head	ASTM D5385	$> 110 \text{ m}$
Lateral water migration resistance	ASTM D5385 modified	$> 110 \text{ m}$
Gas permeability, $10^{-6} \text{ m}^3 / (\text{m}^2 \cdot \text{D})$	ASTM D1434	60
Low temperature flexibility	ASTM D5147	Unaffected @ -20°C

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