

COLPHENE BSW UNI NG



WATERPROOFING

APPLICATIONS

FOUNDATIONS

UNDERGROUND STRUCTURES

TECHNICAL DATA SHEET

ANZ-TDS-12-COLPHENE BSW UNI NG

DESCRIPTION

COLPHENE BSW UNI NG is a waterproofing membrane composed of a select blend of high-performance flexible SBS elastomeric bitumen reinforced with a ultra high strength double reinforcement system (heavy duty non-woven polyester associated with an additional specific fleece).

The topside is covered with specially engineered carbon dioxide crystals and the underside is covered by a thermofusible plastic film.

Thanks to its special formulation and composition **COLPHENE BSW UNI NG** has excellent, continuous and homogenous bond to poured structural concrete, increased resistance to hydrostatic pressure and superior resistance to tears and punctures.

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

Excellent adhesion to poured concrete

Superior resistance to tears & punctures

High resistance to hydrostatic pressure

Increased protection thanks to DUO SELVEDGE

FIELD OF APPLICATION

COLPHENE BSW UNI NG is a pre-applied membrane designed for horizontal blind side waterproofing applications (below grade and tanking works).

COLPHENE BSW UNI NG can be used for the following general applications:

- Retaining walls
- Foundations

APPLICATION METHOD

COLPHENE BSW UNI NG is installed loose laid on the concrete slab or compacted soil or **COLPHENE BSW UNI NG** can be fully torched over loose laid SOPRALENE FLAM 180.

DUO SELVEDGE

Over the entire width of DUO SELVEDGE, 60% of the surface is covered with exposed sticky bitumen. The remaining surface of the selvedge (40%) is covered by a thermofusible plastic film to seal overlap by heat-welding with a propane torch or with the SOPRAMATIC automatic hot-air welder.

INSTALLATION PROCEDURE

SUBSTRATE

- No work should be started until all surfaces are smooth, dry and free of ice, snow or any other substance that may prevent the membrane from adhering properly
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator

INSTALLATION

- **COLPHENE BSW UNI NG** loose laid onto blinding or the prepared substrate
- Side lap joints must be a minimum of 100 mm and end lap joints must be a minimum of 150 mm. Ensure bleed out at all laps and end-laps.
- To prevent overly thick membranes, stagger the end laps by a minimum of 300 mm
- All angle changes (inside and outside corners) and others details must be reinforced by heat-welding on additional 300 mm piece of **COLPHENE BSW UNI NG** centered on the angle
- Reinforcement steel bars installation and pouring of the concrete slab must be carried out carefully

FOR COMPLETE INSTALLATION SPECIFICATION AND INFORMATION PLEASE CONTACT YOUR LOCAL SOPREMA REPRESENTATIVE.

COLPHENE

BSW UNI NG



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PACKAGING

SPECIFICATIONS	COLPHENE BSW UNI NG
Thickness	4 mm
Roll dimensions	1 m x 8 m
Roll weight	42 kg
Rolls per pallet	25

PROPERTIES

PROPERTIES	STANDARDS	COLPHENE BSW UNI NG
Overlap (DUO technology)	-	100 mm (40 mm sticky bitumen + 60 mm thermofusible film)
Root resistance	EN 13948	NPD
Watertightness	EN 1928	Conform
Durability Watertightness after ageing	EN 1296 / EN 1928	Conform
Peel resistance of joints	EN 12316-1	≥100 N/50 mm
Resistance to impact – Method A Method A is on rigid substrate (aluminum)	EN 12691	1750 mm (±250)
Shear resistance of joints	EN 12317-1	≥800 N/50 mm
Flexibility at low temperature	EN 1109	-25C
Tensile properties Tensile strength L x T Elongation L x T	EN 12311-1	950 x 950 N/50mm (±100) 45 x 45 % (+/- 10%)
Resistance to static loading Method B Method B is on rigid substrate (concrete)	EN 12730	25 kg (±5)
Reaction to fire	EN 13501-1	E
Resistance to tearing (nail shank) L x T	EN 12310-1	300 x 300 N (±50)
UV exposure	-	Up to 60 days
Dangerous substances*	-	Complies
Binder	-	Elastomeric bitumen : select blend of high-performance bitumen and SBS* thermoplastic polymers

(All values are nominal)

*According to UEAtc directives concerning the normalization of waterproof elastomeric SBS bitumen coverings

* This product does not contain asbestos or tar constituents.

* 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.

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PROPERTIES (CONT.)

PROPERTIES	STANDARDS	COLPHENE BSW UNI NG
Durability Flow resistance at elevated temperature after ageing	EN 1110 EN 1296 / EN 1110	$\geq 100^{\circ}\text{C}$ $\geq 90^{\circ}\text{C}$
Peel or stripping strength of adhesive bonds Bonding peel strength	ASTM D 903-98 // 2010	6500 N/m
Resistance to hydrostatic head	ASTM D5385	>110 m
Lateral water migration	ASTM D5385 modified	>110 m
Bitumen ultimate elongation	ASTM D412 Modified	1000% (+/- 200%)
Air Permeance @75Pa	ASTM E2178	< 0.02 L/s.m ²
Methane Gas Permeability @1 atm	ASTM D1434	4.12E-07 cm ² /s
Resistance to Puncture	ASTM E154-99	1350 (+/-100) N/m
Vapor Permeance	ASTM E96-12 (Method B)	0.832 ng/Pa.m ² .s
Lap Adhesion	ASTM D1876	1500 N/m
Radon resistance $R_{Rn}^{(1)}$ (s·m ⁻¹)	ISO DIS 11665-10	3.30E+08

(All values are nominal)

(1): Materials with a higher radon resistance are considered less permeable to radon and therefore can prevent or reduce radon ingress more effectively. Under the test conditions, the radon resistance was 17.37 times higher than the radon resistance of 6 mils polyethylene membrane.

STORAGE AND HANDLING

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. Shelf life of **COLPHENE BSW UNI NG** is 36 months, when properly stored.

During storage, protect the rolls against moisture. In cold weather, we recommend that the rolls be kept at a minimum temperature of + 2°C for at least 5 hours before installation.

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this publication is based on the present state of our best knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, their representative or the contractor is responsible for checking the suitability of products for their intended use.

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