

COSMO DUOFLEX TX

One component, polyurethane - bitumen liquid membrane for flashing, waterproofing & protection

DESCRIPTION

COSMO DUOFLEX TX is a quick-curing, one component, thixotropic, bitumen-extended polyurethane fluid. It produces a hydrophobic, elastic membrane with very strong adhesion to most types of substrates, as well as bituminous, and excellent mechanical and chemical resistance properties. It is ideal for application on vertical surfaces: No running, no bubbling.

It is based on pure elastomeric hydrophobic polyurethane resin and is extended with chemically polymerised virgin bitumen.

RECOMMENDED FOR

Waterproofing and protection of:

- Gypsum and cement boards,
- Asphalt membranes (for repair also),
- Cementitious substrates,
- Roofs,
- Light roofing made of metal or fibrous cement,
- Basements,
- Foundations,
- Closed spaces with high humidity.

LIMITATIONS

Not recommended for unsound substrates.

PACKAGING

5 kg,

ADVANTAGES

- Economic
- Thixotropic: Easily applied on vertical surfaces and complex shapes without running or bubbling.
- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 150 °C.
- Resistance in the cold: The film remains elastic even down to -40 °C.
- Outstanding mechanical properties, high elongation, tensile and tear strength, high abrasion resistance.
- Excellent chemical resistance.
- Effective humidity barrier.

APPLICATION PREREQUISITES

In general, COSMO DUOFLEX TX has excellent adhesion to most types of substrates, as well as bituminous, without the use of primers. Nevertheless, testing before use is strongly advised. Please contact our technical department for further information.

Concrete substrate conditions (standard):

Hardness: R28 = 15Mpa.

Humidity: W < 10%.

Temperature: 5-35 oC.

Relative humidity: < 85%.

Primer selection for special conditions and substrates:

Although the material has excellent adhesion on most common construction substrates, suitable primers are:

Aquaprimer: For strong concrete or in cases of damp wet concrete.

Microprimer: In cases of porous concrete.

APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with the necessary product.

Application: Apply with brush or spatula or airless spray.

CONSUMPTION

Total consumption: **2 kg/m²** in one or two coats.

CLEANING

Clean tools and equipment first with paper towels and then using pure xylene.

SHELF LIFE

Can be kept for 6 months minimum in the original unopened pails in dry places and at temperatures of 5-25 oC. Once opened, use as soon as possible.

COSMO DUOFLEX TX

TECHNICAL SPECIFICATIONS

In Liquid form (before mixing and application):

~90% dry matter in Xylene.

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	15-20.000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.28
Flash point	°C	ASTM D93, closed cup	> 50
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	1.00-2.00
Recoat time	hours	-	6-24

The cured membrane:

PROPERTY	UNITS	METHOD	SPECIFICATION	
Service temperature	°C	-	-40 to 80	
Max. temperature short time (shock)	°C	-	150	
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	35	
Tensile strength at break @ 23 °C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	50 (5)	
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 400	
Adhesion to concrete	kg/cm ² (N/mm ²)	ASTM D4541	Without primer: >0.5 N/mm ² (EOTA minimum requirement)	With primer: >2 N/mm ²
Thermal resistance (200 days @ 80 °C)	-	EOTA TR011	passed	
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (1000 hours)	
Chemical resistance (Sodium Hypochlorite NaOCl 5% 10 days)	-	-	unaffected	
Hydrolysis resistance (Potassium Hydroxide 8% 10 days @ 50 °C)	-	-	unaffected	
H ₂ O absorption (10 days)	-	-	< 1.5%	

Safety Informations

Contains a small quantity of volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.