Hypertectum Duoflex 1K

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

APPLICATION	CONSUMPTION	SERVICE TEMPERATURE	COLOUR
Brush or spatula	1.5 kg/m², 2 coats	−40 to +80 °C	Black

01 DESCRIPTION

Hypertectum Duoflex 1K is a quick-curing, one-component, thixotropic, bitumen-extended polyurethane fluid. It forms a hydrophobic, elastic membrane with very strong adhesion to most types of substrates, including bituminous ones, and excellent mechanical and chemical resistance. Ideal for vertical surfaces: no running, no bubbling. It is based on a pure elastomeric, hydrophobic polyurethane resin extended with chemically polymerised virgin bitumen. Apply with brush or spatula. Total consumption: 1.5 kg/m² in two coats.

02 COLOUR

Black

03 LIMITATIONS

Not recommended for:

- Unsound substrates
- UV-exposed applications

04 MAIN FEATURES

- Thixotropic: easily applied on vertical surfaces and complex shapes without running or bubbling
- Fast curing
- Excellent adhesion to almost any type of surface, with or without special primers
- No thinning required
- Excellent heat resistance; never turns soft. Max service temperature 80 °C, max shock temperature 150 °C
- Remains elastic down to −40 °C
- Outstanding mechanical properties: high elongation, tensile and tear strength, high abrasion resistance
- Excellent chemical resistance
- Effective humidity barrier

05 RECOMMENDED FOR

Waterproofing and protection of:

- Gypsum and cement boards
- Bituminous membranes (including repair)
- Planter boxes
- Cementitious substrates
- Roofs
- Concrete (reinforced or not)
- Light roofing made of metal or fibre-cement
- Basements
- Foundations
- Enclosed spaces with high humidity

06 APPLICATION PREREQUISITES

Hypertectum Duoflex 1K generally has excellent adhesion to most types of substrates, including bituminous ones, without a primer. Testing before use is nevertheless strongly advised. Where a primer is needed, select it from the Hypertectum primer range. Contact ETS Europe for further information.

Standard conditions for a concrete substrate:

Concrete strength	Moisture	Temperature	Relative humidity
C20/25	≤ 5 %	5–35 °C	< 85 %

07 APPLICATION PROCEDURE

Surface preparation	Clean the surface with a high-pressure washer where possible. Remove oil, grease and wax. Remove cement laitance, loose particles, mould-release agents and old cured membranes. Fill surface irregularities with a suitable product.
Application	Brush or spatula.

08 CONSUMPTION

Total 1.5 kg/m² in two coats

09 CLEANING

Wipe tools with paper towels, then clean with a suitable solvent.

10 PACKAGING

1 kg, 4 kg, 20 kg

11 STORAGE

At least 12 months in the original unopened pails, in a dry place at 5–25 °C. Once opened, use as soon as possible.

12 SAFETY

Contains a small amount of volatile, flammable solvents. Apply in well-ventilated, no-smoking areas, away from naked flames. In enclosed spaces, use ventilators and activated-carbon masks. Solvent vapours are heavier than air and collect at floor level. See the Safety Data Sheet.

13 TECHNICAL DATA — LIQUID (BEFORE APPLICATION)

PROPERTY	UNIT	METHOD	VALUE
Viscosity (Brookfield)	cP	ASTM D2196, 25 °C	20,000–30,000
Density	g/cm³	ASTM D1475 / ISO 2811, 20 °C	± 1
Flash point	°C	ASTM D93, closed cup	42
Tack-free time (25 °C, 55 % RH)	h	–	1.5–2.5
Recoat time	h	–	3–24

14 TECHNICAL DATA — CURED MEMBRANE

PROPERTY	UNIT	METHOD	VALUE
Service temperature	°C	–	−40 to +80
Max. short-term (shock) temperature	°C	–	150
Hardness	Shore A	ASTM D2240 / ISO 868	35
Tensile strength at 23 °C	kg/cm² (N/mm²)	ASTM D412 / EN ISO 527-3	30 (3)
Elongation at break at 23 °C	%	ASTM D412 / EN ISO 527-3	> 600
Adhesion to concrete, without primer	N/mm²	ASTM D4541	> 0.5
Adhesion to concrete, with primer	N/mm²	ASTM D4541	> 2
Thermal resistance (200 days at 80 °C)	–	EOTA TR011	Passed
QUV accelerated weathering (4 h UV at 60 °C, UVB lamps + 4 h condensation at 50 °C)	–	ASTM G53	Passed (1,000 h)
Chemical resistance (NaOCl 5 %, 10 days)	–	–	Unaffected
Hydrolysis resistance (KOH 8 %, 10 days at 50 °C)	–	–	Unaffected
Water absorption (10 days)	%	–	< 0.9

The information in this data sheet reflects current techniques and our best knowledge. Because the use of the product is beyond our control, neither the manufacturer nor the distributor can be held responsible for results. Instructions not covered by this data sheet require written confirmation from head office. Our general terms and conditions apply. This data sheet cancels and replaces all previous versions.