Hypertectum Duoflex 1K FC

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

APPLICATION	CONSUMPTION	SERVICE TEMPERATURE	COLOUR
Brush, spatula or airless spray	2.0 kg/m², 1–2 coats	−40 to +80 °C	Black

01 DESCRIPTION

Hypertectum Duoflex 1K FC is a very fast through-curing, one-component, self-levelling, bitumen-extended polyurethane liquid membrane. Although fast curing, it does not form bubbles during curing, even at high temperatures and high atmospheric humidity. It shows excellent adhesion to most types of substrates, including bituminous ones. It is based on a pure elastomeric, hydrophobic polyurethane resin extended with chemically polymerised virgin bitumen. Apply with brush, spatula or airless spray. Total consumption: 2.0 kg/m² in one or two coats.

02 COLOUR

Black

03 LIMITATIONS

Not recommended for:

- Unsound substrates
- UV-exposed applications

04 MAIN FEATURES

- Very economical
- Very fast curing, even at low temperatures and low humidity
- Minimal bubble formation
- Allows multi-layer application
- Excellent adhesion to almost any type of surface, with or without special primers
- 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:

- Basements
- Foundations
- Roofs, including inverted roof build-ups
- Concrete (reinforced or not)
- Under-tile waterproofing of balconies and wet rooms
- Polyurethane insulation foams
- General-purpose, heavy-duty applications

06 APPLICATION PREREQUISITES

Hypertectum Duoflex 1K FC has excellent adhesion to most types of substrates, including bituminous ones, without a primer. Testing before use is nevertheless strongly advised. Contact ETS Europe for further information.

Standard conditions for a concrete substrate:

Compressive strength (R28)	Moisture	Temperature	Relative humidity
≥ 15 MPa	< 10 %	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.
Mixing	Mix the contents of the pail thoroughly with a mechanical mixer until fully homogeneous before application. Prolonged storage may cause slight sedimentation or separation; re-homogenise before use.
Application	Brush, spatula or airless spray.

08 CONSUMPTION

Total 2.0 kg/m² in one or two coats

09 CLEANING

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

10 PACKAGING

1 kg, 5 kg, 25 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	3,000–5,000
Density	g/cm³	ASTM D1475 / ISO 2811, 20 °C	1.25–1.35
Flash point	°C	ASTM D93, closed cup	30
Tack-free time (25 °C, 55 % RH)	h	–	1–2
Recoat time	h	–	6–24

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	> 20 (> 2)
Elongation at break at 23 °C	%	ASTM D412 / EN ISO 527-3	> 800
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
Water absorption (10 days)	%	–	< 1.0

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.