

Hypertectum AF FC ®

Date : 18/04/2017
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Novel, all weather rapid curing, single component polyurethane liquid membrane for waterproofing and protection based on Humidity-Activated-Accelerator, Technology

A division of ETS Europe.

PRODUCT INFORMATION

DESCRIPTION:

Hypertectum AF FC is a unique single component polyurethane liquid membrane, based on the successful combination of **Hypertectum AF FC** and Accelerator which throughout the years has provided applicators with a solution for a fast curing, bubble free thick layer membrane. Our commitment to R&D and investment and our efforts to continuously upgrade our Chemical processing plant has allowed us to formulate a **Hypertectum AF FC** with the Accelerator incorporated in a blocked fashion, that upon contact with humidity is released and self-accelerates the curing of the material in a similar manner as the Accelerator .

Due to its unique formulation, it cures rapidly to form a completely defect free membrane with excellent mechanical and elastomeric properties. This product is ideal for use during the winter months or in climates with relatively low humidity. Furthermore, the fact that the minimum consumption can now be achieved in only one coat, reduces labor cost and eliminates previous drawbacks of the **Hypertectum AF FC + Accelerator** system such as short working time or problems associated with using **Hypertectum AF FC** on its own in multilayer coats adhesion failure.

COLOUR:

The colour of **Hypertectum AF FC** is white, which reflects much of the solar energy and so reduces the internal temperature of buildings considerably.

PROPERTIES AND BENEFITS

- Quick curing (skin formation time of 2 hours) ;
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance ;
- Good chemical resistance ;
- Excellent weather and UV resistance ;
- Bubble and defect free membrane ;
- No thinning is required but SOLVENT-01 may be used ;
- Excellent thermal resistance, the product never turns soft. Recommended service temperature 80 °C, max shock temperature 200 °C.;
- Resistance in the cold: The film remains elastic even down to -40 °C.;
- Moisture vapor transmission: The film breathes so there is no accumulation of humidity under the coat ;
- Special primers available for almost every substrate.

RANGE OF USAGE

Headoffice

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TECHNICAL DATA SHEET

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Hypertectum AF FC is ideal as waterproofing and protection of: Gypsum and cement boards; polyurethane insulation foams; verandas and balconies; roofs; light roofing made of metal or fibrous cement; asphalt membranes and of EPDM membranes. **Hypertectum AF FC** can be successfully applied on: concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood. For information about other substrates, please contact our technical department.

Nevertheless, **Hypertectum AF FC** is not recommended for: unsound substrates; waterproofing of swimming pool surfaces in contact with chemically treated water.

Note: Primer usage is necessary, please refer to primer selection table or contact our technical department.

TECHNICAL INFORMATION

In liquid form (before application):

Property	Unit and specification
Viscosity (Brookfield) of mixed product	4000-6000 cP according to ASTM D2196-86, @ 25 °C (method)
Specific weight	+/-1.4 gr/cm ³ according to ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C (method)
Tack free time, @ 77 °F (25 °C) & 55% RH	2-3 hours
Flash point	42 °C according to ASTM D93, closed cup (method)
Recoat time	6-48 hours

In cured form:

Service temperature	-40 to 80 °C
Max. temperature short time (shock)	200 °C
Hardness	65 Shore A according to ASTM D2240 / DIN 53505 / ISO R868 (method)
Tensile strength at break @ 23 °C	60 kg/cm ² according to ASTM D412 / EN-ISO-527-3 (method)
Percent elongation @ 23 °C	> 350 % according to ASTM D412 / EN-ISO-527-3 (method)
Water vapour transmission	0.8 gr/m ² .hr according to ASTM E96 (Water method)
Tensile set (after 300% elongation)	< 3.5% according to ASTM D412
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	Passed (2,000 hours) according to ASTM G53 (method)

The information above is given based on our experiences. Adjustment may be required in case of object specific fluctuations.

MIXING AND APPLICATION

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PREREQUISITES:

Concrete substrate conditions (standard):

- Hardness: $R_{28} = 15\text{Mpa}$.
- Humidity: $W < 10\%$.
- Temperature: $5\text{-}35\text{ }^{\circ}\text{C}$.
- Relative humidity: $< 85\%$.

Primer selection for special conditions and substrates: Please refer to the *Primer Selection Table*.

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. **Minimum total consumption:** $\pm 1.5\text{ kg/m}^2$.

Use a low speed (300 rpm) mixer. Add SOLVENT-01 5-10% for application by spraying.

Apply the material with roller or brush (or airless spraying) in one or two, coats. Do not exceed 48 hours between coats. If more time passes (for example more than 4 days) or if you are unsure of the interlayer adhesion, please contact our technical department.

Note: When used in dark colours for exposed use, a protective topcoat of **Hypertectum Top Coat Flex** (always pigmented) is required.

TOOLS AND CLEANING

Clean tools and equipment first with paper towels and then use SOLVENT-01. Rollers will not be re-usable.

PACKAGING AND STORAGE

Packaging: 1 kg, 6 kg, 15 kg, 25 kg and 200 kg drums.

Storage: Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of $5\text{-}25\text{ }^{\circ}\text{C}$. Once a pail has been opened, use as soon as possible.

SAFETY, ECOLOGY AND ELIMINATION

HYpertectum AF FC contains 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. Please refer to the Material Safety Data Sheet (MSDS) for further information on safety during transportation, storage, handling and disposal. Follow instructions on the packaging.

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The product complies with the EU guideline for this type of materials, EOTA (European Organization of Technical Approval).

The content of this technical data sheet corresponds to the latest development and our applications experience. All other details can be confirmed by ETS-Europe. The correct and therefore successful application of our products is not within our control. Therefore, a guarantee can be given only for the quality of our products. This technical data sheet replaces all earlier technical data on this product. Our employees and/ or distributors going beyond the information provided in this data sheet, must have a written confirmation. We reserve the right to change the product specifications due to technical progress.

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