FIBELASTIC PU

One pack aliphatic pu aqueous UV Crosslinking water based waterproofing Coating

Product # 114.46
Version no: 16.11.23

Data

PRODUCT DESCRIPTION: Fibelastic PU is a ready-mixed liquid waterproofing membrane developed by the FIBREX R&D laboratories. It is an innovative system made from synthetic polyurethane resins in water dispersion containing no solvents, no bitumen/coal tar, no isocyanates and no VOC. On exposure to direct sunlight UV cross-linkers activate and strengthen the coating. Drying process of coating releases only water vapours and no other toxic chemicals found in conventional coatings. Fibelastic PU adheres strongly to numerous types of substrate and with its high elasticity, is compatible for roof structures exposed to normal dynamic stresses.

AREAS OF APPLICATION

- Waterproofing of Rooftops
- Shower recesses, Decks and podiums
- Waterproofing of Dry Walls, Balconies and Terraces
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Balconies, Kitchens, etc
- Protection of Polyurethane Foam Insulation
- Waterproofing and protection of Concrete constructions like Bridge-decks, Tunnels, etc.

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ADVANTAGE

- Simple application (roller or airless spray).
- Fast Drying
- Strengthens with UV light
- Water Based.
- When applied forms seamless membrane without joints.
- Provides high levels of crack bridging.
- Maintains its mechanical properties over a temperature span of -40℃ to +90℃.
- Provides water vapor permeability.
- Full surface adherence without any additional anchoring.
- The waterproofed surface can be walked on.
- Even if the membrane gets damaged, it can be easily repaired locally within minutes.
- Low VOC content < 100g/l

APPLICATION METHODOLOGY

SURFACE PREPARATION

Careful surface preparation is essential for optimum finish and durability. The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 12%. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed. Make sure that the surface on which the waterproofing membrane will be applied has min 2% slope, as per Standard Building practices. If this is not the case, use cementitious mortar, resin mortar or other, to create the correct slope, before the application of the waterproofing coating.

Repair of cracks and joints: The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results. Clean concrete cracks and hairline cracks, of dust, residue or other contamination. Prime locally with the EVERSIL PRIMER and allow 1 hours to dry. Fill all prepared cracks with Fibfloor Putty. Cover with a correct cut stripe of the FIBFLEX GEOMESH. Press it to soak. Then saturate the FIBFLEX GEOMESH with enough FIBELASTIC PU until it is fully covered. Allow 18-24 hours to cure. Clean concrete expansion joints and control joints of dust, residue or other contamination.

Priming: Primer highly absorbent and brittle surfaces like concrete, cement screed, mortar, plaster, wood and non-absorbent surfaces like metal and ceramic tiles with EVERSIL PRIMER. Allow the primer to cure according its technical instruction.

MIXING

No need to premix but Stir well before using.

APPLYING AND LAYING

Waterproofing membrane : Pour the FIBELASTIC PU onto the prepared and primed surface and lay it out by roller, brush or squeegee, until all surface is covered. You can use airless spray allowing a considerable saving of manpower.

ATTENTION: Reinforce always with the FIBFLEX GEOMAT at problem areas, like wall-floor connections, pipes, chimneys, waterspouts (siphon), light domes, etc. In order to do that, apply on the still wet FIBELASTIC PU a 75 mm wide FIBFLEX GEOMAT, press it to soak, and saturate again with enough FIBELASTIC PU. For detailed application instructions with the FIBFLEX GEOMAT, contact our R+D department.

ATTENTION: Do not apply the FIBELASTIC PU in temperatures below 5℃ or when dew, rain or frost is imminent in the next 48 hours. For best results, the temperature during application and cure should be between 5 ℃ and 35 ℃. Low temperatures retard cure while high temperature speed up curing. High humidity (fog or dew conditions) retard cure and affect the curing times and curing properties. Do not apply the FIBELASTIC PU over 0.6 mm thickness (dry film) per layer. Not recommended for application on negative side of water retaining structures. No product containing solvents should be applied over this coating.

Construction Chemicals Pvt. Ltd.

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Application in High Temperature or Uncured Concrete or High water vapor pressure area can cause shrinkage cracks or blistering due to improper curing of coating. Avoid application in such conditions.
Finishing For heavy traffic and load areas, apply 50-75 mm protection screed on horizontal areas and 15-20 protective plaster for vertical areas. For Protection plaster on vertical areas it is recommended to sprinkle dry sand while the final coat is being applied to provide anchoring for plaster.

TECHNICAL SPECIFICATIONS

PROPERTY	RESULTS	TEST METHOD
Appearance	Viscous liquid	
Color	White/Green/Customized color	
Viscosity mPa.s	5000-10000	
Solid Content %	75±3	
Initial Elongation at break	>450%	ASTM D 412/DIN 53504
Tensile Strength	>1.3 N/mm^2	ASTM D 412/DIN 53504
Crack Bridging	Class A5 Class B4.2	EN 1062-7
Water Vapor Permeability	>15gm/m^2/day S_d>5 m	ISO 9932 EN 12572
Impermeability to Water $Kg/m^2.h^{0.5}$	<0.02	EN 1062-3
Resistance to Water Pressure	No leak (1m water column, 24 hr)	EN 1928
Adhesion to primed concrete	>1.2 N/mm^2	ASTM D 903
Hardness	60	ASTM D 2240
Light Pedestrian Traffic Time	18-24 hours	
Fungi Resistance	Pass	ASTM G 21
VOC Content	<0.5 g/L	ASTM D6886
Initial Drying Time 25°C	2 hours	
Recoating Time 25°C	6 hours	
Minimum DFT	750 microns	
Full Cure	3 days	
Ready for Pond Test	7 Days	ASTM D 2939
Artificial Exposure to atmospheric agents	2000 hrs	ASTM D 4799/EN 1062-11
Salt Spray Resistance	500 hrs no blistering	ASTM B 117
Permeability to CO_2 S_{DCO2} (m)	>100	EN 1062-6
Mildew Resistance	Passes	ASTM D3273/4
Coverage	1.9kg/sqm/mm	

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- Do not apply FIBELASTIC PU on surfaces known to, or likely to, suffer from rising dampness, potential osmosis problems or having relative humidity greater than 75 %. Consult fibrex before using FIBELASTIC PU in those areas.
- Do not apply FIBELASTIC PU to asphalt, weak or infirm concrete, unmodified sand-cement screeds, PVC tiles or sheets, or substrates known to move substantially.
- Do not apply FIBELASTIC PU over treated expansion joints.

Please contact FIBREX for installation of floor coating over

- Oil / Fat rigged floors
- Floors with rising moisture problem
- Asphalt based surface (interior)
- Floors with a pull off strength less than 1.5 N / mm^2

COLOR RANGE

FIBELASTIC PU is available in various attractive colors (SEE Fibrex shade card) ON SPECIAL ORDER. Every effort is made in manufacturing to maintain consistency of color, however exact color can vary from one batch to other batch.

PACKAGING

FIBELASTIC PU is available in 20 kg Plastic Buckets.

STORAGE

FIBELASTIC PU has shelf life of 12 months if stored properly in original, unopened packing between +50° to + 40° in dry areas.

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PRECAUTIONS

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and busing, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL / SPILLAGE

Spillage of any of the component products should be absorbed onto sand or other inert material and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

HEALTH AND SAFETY

This material is intended to be used by trained professionals with proper equipment's. The following safety measures are recommended:

- Wear protective gloves, clothing, goggles, hearing protection for noise reduction and hard hats for falling debris.
- Do not eat, drink or smoke while in active contact with these materials.
- Avoid skin contact.
- Wash hands thoroughly with soap and cool water.
- Never wash the skin with a solvent.
- Anyone experiencing difficulty breathing when working with these materials or showing an allergic reaction should seek fresh air immediately and consult a physician if symptoms persist.

DISCLAIMER:

Fibrex Construction Chemicals pvt. ltd. products though are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Fibrex wishes to clarify that any advice, recommendation, specification or information is accurate and correct, though it cannot, at any time assume any liability either directly or indirectly arising from the use of its products. This is because it has no direct or constant control over where or how its products are applied, and whether or not in accordance with the advice specification, recommendation or information given by it.

FIBREX OTHER PRODUCTS – WE DO

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