

TUFFSHIELD (H)

Single Component Hybrid polyurethane waterproofing membrane

Product # R115.27

Version no: 15.01.25

data
Tech

PRODUCT DESCRIPTION: TUFFSHIELD (H) is a water based compound based on specialty polymers. TUFFSHIELD (H) is a white pigmented, moisture insensitive compound, designed to use as a liquid applied water proofing membrane for outdoor applications, especially on building roofs. The dried films have low water absorbance charactor along with good water repellent properties.

AREAS OF APPLICATION

- new construction roofs
- Serviced roofs
- Flat or sloping roofs
- Cool roofs
- Refurbished roofs
- Corrugated Sections
- Metal Roofing Sheets
- Glvanized Steel Sheets
- Plastic Roofing Sheets
- PVC Plastisol Sheets
- Polycarbonate Sheets
- Asbestos Cement Roofing Sheet

ADVANTAGE

- One component easy and ready to use product.
- Liquid application gives no joints in the cured membrane.
- High elasticity gives a permanent flexible resilient barrier over a wide range of temperatures.
- Rapid installation helps to reduce time spent on works.
- Excellent adhesion on a wide range of substrates.
- Outstanding barrier properties ensure protection against corrosive soil conditions & root resistance.
- Irreversible chemical cure eliminates melting and flow at high temperature.
- Excellent resistance to oxidation and embrittlement.
- Easy to repair by spot application.
- UV Resistance (color may be change but technical properties not affected).

APPLICATION

SURFACE PREPARATION

Substrate surface must be firm, offer good traction, free from loose particles, dust, dirt and additionally free of oil, grease and other impurities which can adversely affect uniform adhesion. If considered necessary, the surface should be flame scaled, milled or grinded well.

A high pressure water jet cleaning is recommended before applying TUFFSHIELD (H). It can be used directly on a highly water soaked surface; but no standing water should be there.

MIXING

TUFFSHIELD (H) requires no pre-blending and should be used directly from the container but stir well before use.

PRIMING

TUFFSHIELD (H) is not normally require primer. However, high absorbent surfaces such as porous concrete, sand/cement and cement boards will require sealing to prevent absorption of TUFFSHIELD (H) Use Fibfloor Cem Primer (Universal Primer) or eversil primer .

APPLYING AND LAYING

The material should be applied to the prepared surface using roller or brush. Ensure material is spread evenly. Do not re-roll later. The work area should be protected during the installation process and during the initial curing time to ensure that no airborne debris can contaminate.

CLEAN UP

Clean all tools immediately after use with water. Do not allow material to harden. Any hardened material will need to be removed mechanically.

TECHNICAL SPECIFICATIONS

Appearance	off-white or White liquid
Polymer Type	Hybrid Polyurethane
Viscosity (BROOKFIELD RVF 4/20)	12000 – 18000 cps
Total Solid Content	64.0 – 66.0 %
pH	6.0 - 8.0
Appearance (after dry)	non-transparent film
Surface (after dry)	Non tacky
Drying Time & Over coat time	3.5 to 4 hours @30°C & 80% RH
Average Adhesion strength (ASTM D4541)	1.7±02MPa @ 28days
Water Vapour Permeability (Using Payne Cups)	± 5-10gms/m ² /24hrs@35°C and 75% RH (Relative Humidity)
Tensile strength (ASTM D412)	3.4MPa @22°C & 55% RH
Elongation at break (ASTM D412)	>450% @22°C & 55% RH
Water Absorption (0.35mm thickness film)	45% in two days and same as 77days
Volatile Organic Compounds (V.O.C.)	Nil
Recommended Thickness and coverage	1mm/1.9-2kg/m ² (in two coats)
Crack Bridging (ASTM 1305) 2mm gap width 1 mm gap width for 10 cycles	No cracks No cracks
Hardness After cure	80
Touch-dry time (min)	40
Service temperature	Flexible up to -8°C
Angle Tear, kgf/mm (IS 3400 part 17-2003)	2.8

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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.

PACKAGING

TUFFSHIELD (H) is Packed in 500gm, 5kg and 20kg.

SHELF LIFE

Store the material at temperatures between + 5° C and + 40° C in originally sealed packages, the material can be stored for 18 months. Open containers/buckets of material should be used quickly to avoid moisture contamination.

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, 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.

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