

# TUFFSHIELD (BLACK)

Single Component Pitch Modified Polyurethane Waterproofing Membrane

Product # R115.26

Version no: 15.01.25

Data  
Tech

**PRODUCT DESCRIPTION:** TUFF SHIELD(BLACK) is a single component pitch modified Hybrid polyurethane technology. TUFFSHIELD (BLACK) is designed for use as a liquid applied membrane.

## AREAS OF APPLICATION

- Foundations
- Basements, ground floors & suspended floors
- Car deck
- Bathroom and kitchen floors
- Balconies, roof terraces
- Patios & precincts
- Bridges
- Inspection pits
- Water retaining structures (not potable water) and inverted roofs
- underneath hard landscaping on podium areas
- shower rooms, plumbing rooms beneath hard protection like ceramic tiles

## 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.
- Irreversible chemical cure eliminates melting and flow at high temperature.
- Excellent resistance to oxidation and embrittlement.
- Easy to repair by spot application.
- Root resistance
- Horizontal and vertical applications

## APPLICATION

### SURFACE PREPARATION

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

### MIXING

No need to special type of mixing but stir (shake) well before use.

### PRIMING

TUFFSHIELD (BLACK) 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 (BLACK) 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	Black, viscous compound
Brookfield viscosity (RVT 10 rpm, 20°C)	14000 - 20000 cps
Total Solid Content	56.0 +/- 1.0 %
pH	6.0 - 8.0
Appearance (after dry)	Black, 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±0.2MPa @ 28days
Water Vapour Permeability (Using Payne Cups)	± 5-10gms/m <sup>2</sup> /24hrs@35°C and 75% RH (Relative Humidity )
Tensile strength (ASTM D412) @7 days	3.4MPa @22°C & 55% RH
Elongation at break (ASTM D412)	>400% @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 <sup>2</sup> (in two coats)
Crack Bridging (ASTM 1305) 2mm gap width 1 mm gap width for 10 cycles	No cracks No cracks
Hardness (Shore A) After 2 hour cure	38
Touch-dry time (min)	60
Service temperature	Flexible up to -8°C
Angle Tear, kgf/mm (IS 3400 part 17-2003)	1.5

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## PACKAGING

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

## STORAGE

Store the material at temperatures between + 5° C and + 45° C in originally sealed packages, the material can be stored for 18 months. But before opening the drums, be assured that the temperature of the materials has the ambient temperature to avoid condensation. Open containers 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 and using, 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.

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