ULTRATUFF FC waterproofing membrane

Internal & External Waterproofing System

Last Updated 5th APRIL 2008

Product Data Sheet

DESCRIPTION:
"*UTRATUFF* FC" is a fast cure elasticised, latex, water-based, waterproof membrane "*UTRATUFF* FC" is designed for under Tile use in demanding internal & external waterproofing applications. Exposed areas must be over coated with "Ultratuff UV" top coats to protect the membrane from UV damage. Properly applied, "*UTRATUFF* FC" cures to form a durable, elastic, seamless odourless and impervious membrane that will not re-emulsify once it has fully cured even if continually immersed in water.

ADVANTAGES:
"*UTRATUFF* FC" presents the market with a number of positive characteristics encompassing very fast cure times, good resistance to alkalis, salt solutions & diluted acids, non hazardous composition with excellent strength & flexible characteristics.

APPLICATIONS:
"*UTRATUFF* FC" has been specifically designed for the long term waterproofing of wet areas inc. shower recesses, bathrooms, laundries, exterior decks, terraces, balconies, roofs, flashings, planter boxes, retaining walls and more.

PREPARATION:
Substrates should be dry, smooth, sound and free from oil, grease, waxes, dust, laitance and all loose matter. Any surface defects should be repaired prior to application of membrane.

SUBSTRATES:
Suitable for cementitious, concrete, masonry, compressed sheeting, plaster board, plywood, timber, & metal surfaces.

PRIMING:
All surfaces are to be primed with "*UTRATUFF* Acrylic Primer" water based acrylic primer except when over coating green concrete (must be cured at least 7 days), old membranes, old concrete, surfaces subject to excessive heat / solar induced vapour or where increased adhesion is needed first prime with "*UTRATUFF* Epoxy Primer" water based epoxy primer then overcoat with "*UTRATUFF* Acrylic Primer." Old concrete may need to be diamond ground & degreasing etc. Galvanised metals and steel substrates must be suitably primed (eg, metal etch prime).

APPLICATION:
Application must only be done by approved applicators. Stir well apply by brush & long nap roller to obtain consistent even coats. 1x primer, 2x body coats are required until the cured dry film thickness is at least 1.2mm. Where potential movement of the substrate is expected such as floor to wall joints, sheet joints, penetrations and cracks a 15mm wide x 3mm thick S.M.P sealant bead (Simson ISR 70-05 from Bostic) needs to be applied over these areas as a joint filler & bond breaker. Followed by a coat of "*UTRATUFF* FC" into which a reinforcing fabric or 225gram x 100mm wide fibreglass mat is then embedded followed by a saturating coat (ensure that the reinforcing fabric is completely saturated & there are no pin holes) allow to dry. The second body coat should be applied at right angles to the first body coat after it is completely dry. There should be no pin holes after the second body coat is dry. Apply the recommended top coats ensuring that the area is uniformly covered. All exterior & critical areas such as shower recesses, areas subject to regular foot traffic etc. including old or cracked concrete areas should also have reinforcing fabric applied throughout. Do not apply if temperature is below 5C. Do not apply if rain will develop prior to the membrane drying. Complete application details are available upon request.

WASTE OUTLETS:
Flange fittings are recommended should be rebated into the sub-straight & sanded before waterproofing. The reinforced membrane should be laid over an area 150mm around the outlet and onto the flange plate & turned down into drain finishing to a clean edge.

COVERAGE:

Unreinforced:	1 - 1.5 litres per square metre. For two coats
Reinforced:	1.5 – 2.0 litres per square metre. For two coats
	(Variation may occur depending on the porosity of the substrate.)

DRYING TIME:
Average drying time is 1 hour approx at 20 degrees C in low humidity. Average drying time when reinforced is 3 hours at 20 degrees C in low humidity. (Reinforced membrane is best left to cure through overnight)
Humidity, low ventilation and cooler weather will greatly increase drying times.

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STORAGE:
Store for up to 18 months in sealed containers. The product is not freeze/thaw proof, do not allow too freeze.

CLEAN UP:
Utensils and minor spills can be cleaned with water if still wet. Cured "UTRATUFF FC" can be cleaned with Xylene.

PACKAGING AND COLOUR:
15 Lt Plastic Pails: Available in Tan.

Tiling:
1. The surface must be clean and dry (can be Tiled 24hrs after final coat is completely dry, usually 48hrs)
2. The surface needs to be primed with ASA Multiprime 2 part, in accordance with the ASA instructions.
3. Suitable adhesives are ASA Accelerflex mixed with ASA Fixall or use ASA Conflex mixed with water.
4. Grouting must be done after the adhesive has fully cured.
5. Movement joints must be provided as per the tiling standards.
6. Tile within seven days or lay a protection sheet over the membrane until tiling or covering.
7. Ensure membrane that is going to be left exposed once Tiles are laid is first protected by 2x coats of "ULTRATUFF UV".
8. When fixing underfloor heating on top of the membrane Conflex should be used to cover the elements.

Exposed & Unprotected Areas:
For all exposed & unprotected areas such as roof tops, gutters & decks topcoat with 2x coats of "ULTRATUFF UV", available in Grey & Bison Hyde for U.V. & additional foot traffic protection. Other colours available choose from BS5252 colour charts on request. Decks that are subject to regular foot traffic should have ("Ultraflex CS") or ("Ultraflex RC") added also, see Anti Slip below.

Anti Slip, Decorative & Extra Protection:
ULTRATUFF Coatings also has available "Ultraflex RC" with rubber crumb to improve sound proofing, insulation & is a rubberised, textured coating. Ultraflex RC is more suitable for areas where young children play & a softer surface is desired. "Ultraflex CS" with ceramic spheres is a light textured finish. More suitable for areas where higher amounts of wear are expected & anti slip is an important feature. Both products will help to protect & extend the life of the waterproofing membrane. The selected Ultraflex coats are applied between the "*UTRATUFF* FC" & the "Ultraflex UV "coats. Only one coat of UV is needed when over coating Ultraflex Anti slip coatings if the two coats are the same colour.

PHYSICAL PROPERTIES:

Shore Hardness:	Shore A 70.
Tensile Bond Strength:	> 2N/mm2 (14 Days Cure)
Carbon dioxide Permeability:	Equivalent to 100 metres of still air.
Water vapour:	<4g/m2 (BS3177:1995) (24 hours@ 25° C/ 75%RH / 0.6mm dry film thickness
Resistance to Water Permeability:	0.2N/mm² – (equivalent to approx 20 metres head of water.)
Tensile Strength:	2.6 N/mm² 5.4 N/mm² (reinforced 7 days) 7.5 N/mm (21 day) *(At a speed of 100mm per minute at 23 degrees C)*
Elongation at Break:	+ 400% 80% (reinforced) after 21 days
Crack Bridging:	+/- 2mm at 23° C.
Slant Shear Strength	20N/mm after 28 days. (BS6319: Part 4: 1994)
Chemical Resistance:	Good resistance to alkalis, salt solutions and diluted acids.
Aging:	Not U.V. Stable. For areas subject to U.V. & foot traffic apply *"ULTRATUFF* UV",

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