Multithane HV

Polyurethane Waterproofing Membrane
For Non-Exposed Areas

PRODUCT DESCRIPTION

Multithane HV is a cross linked, moisture curing, single pack, high build, liquid applied polyurethane waterproof membrane which cures to form a tough, seamless, durable, and elastomeric (class III) waterproofing membrane. Multithane HV bonds well to most suitably primed building substrates. It is suitable for above and below ground applications. Multithane HV meets the criteria of:

- ❑ AS4654.1 2012 Waterproofing membranes for external above ground use. Exposed areas must be topped with Multithane ATC.
- ❑ The 'Green Star' environmental criteria.

Multithane HV is one of three versions within the Multithane range which include: Multithane UVR (UV resistant) and Multithane STD (self-leveling). Please refer to these product data sheets for more information.

USAGE/PURPOSE

Multithane HV has been formulated for most waterproofing applications requiring long term waterproofing for Non-UV exposed waterproofing applications making it ideal for:

- ❑ **Exposed Areas** (when top coated with Multithane ATC)**:** Roofs, decks, terraces, balconies, podiums
- ❑ **Tiled or Covered Areas:** Wet areas (floors and upturns), decks, balconies, terraces, podiums, retaining walls, planters & landscaped areas, structural slabs, pits, bunding areas and water retaining structures

PACKAGING

15 Lt pail. 15 Litre of Multithane HV equates to 19.5kg.

COLOUR

Grey and Black.

SHELF LIFE

6 months in unopened container, best used within that period. As this is a moisture curing polyurethane some skinning of the product may occur. This should be cut out and removed. Balance of the product will be suitable for use.

STORAGE

Keep in cool, dry place away from heat, flame, or combustible material. Product contains flammable solvents.

FEATURES & BENEFITS

- ❑ Single pack (no mixing) easy to apply anti-sag technology, up to 1.5mm
- ❑ Rapid cure (within 24 hours)
- ❑ Low VOC levels. Meets the 'Green Star' environmental criteria.
- ❑ Permanently flexible (tests show flexibility < 500% - Class III)
- ❑ It meets the Class III High Extensibility classification of AS4654.1 2012
- ❑ Can be installed in accordance with AS3740:2021 wet area in conjunction with the Duram Azcothane & Durabit range and AS4654.2 exterior, in exposed membrane applications in conjunction with Multithane ATC.
- ❑ Does not re-emulsify once fully cured, long term performance.
- ❑ Bitumen and tar free will not stain grout or tiles.
- ❑ Bonded seamless membrane (no joints or laps).
- ❑ Suitable for immersion in water.
- ❑ Formulated for wet area and under tile use.
- ❑ Suitable for permanent immersion and the most demanding waterproofing applications.
- ❑ Excellent chemical & hydrostatic resistance.
- ❑ High strength and puncture resistant.
- ❑ Easily repaired and or maintained.
- ❑ Formulated to provide long term protection.
- ❑ Inhibits mould and biological growth.
- ❑ Australian Made and a long history of Australian use.

TYPICAL PHYSICAL PERFORMANCE

PERFORMANCE TEST	TYPICAL VALUES
Tensile Strength	1.18 MPa 363% Elongation
Application/surface temperature range	10°C to 35°C Substrate Surface Temperature
Elongation	> 360% (Class III Extensibility)
Moisture Vapour Transmission	12.83g/m²/24 hours
'Green Star' environmental criteria	Less than 120 grams per Litre

LIMITATIONS

- ❑ Not designed for long term direct exposure to UV and should be covered within six weeks.
- ❑ Not designed as a trafficable membrane although infrequent maintenance foot-traffic is acceptable during the construction phase.
- ❑ Not suitable for direct and prolonged contact with concentrations of chlorine above 10 ppm.
- ❑ Direct tile adhesion is not advised. Please note: for direct tile bond applications seek Duram technical advice.
- ❑ Cannot be applied directly to damp surfaces as this will cause gassing and bubbling of the membrane.
- ❑ In exposed areas, Multithane HV must be coated with Duram Multithane ATC or covered.
- ❑ Cannot be applied to slightly damp surfaces the product will not adhere. The surface must dry before the membrane can be applied, freedom from surface water and continual dampness is essential.

COVERAGE/YIELD

Coverage rate varies depending upon type, condition, porosity, texture of the surface and application technique.

- ❑ 1.5 Litres per m² for two coats combined, i.e. 0.75 Litres per m² per coat. Ensure that the DFT of the cured Multithane is 1.35mm for horizontal surfaces (minimum thickness per coat is 0.66mm WFT).
- ❑ Water Resistant Non-Tanking Walls: Minimum 0.75L/m² at 0.6mm DFT.
- ❑ The dry film thickness of the membrane on floors and tanking areas must be 1.35mm DFT.
- ❑ Note: When used as a system minimum DFT is 1.2mm as per current Test Report DC12517-002

SUITABLE SURFACES

- ❑ Cement and Cement Render
- ❑ Concrete
- ❑ Block & Brick work
- ❑ Masonry/Stone
- ❑ FC, CFC, Asbestos and Blue board sheeting
- ❑ Scyon & Composite Sheeting
- ❑ Acrylic Coatings
- ❑ Vitreous, Ceramic & Terra Cotta Tiles
- ❑ Bitumen (when primed with Duram Primeseal MC)
- ❑ Metal (when primed with Duram ME Primer / Primeseal MC)
- ❑ Timber, Particle Board, Plywood (when primed with Duram Primeseal MC)
- ❑ Masonite
- ❑ Plaster Board
- ❑ Extruded Foam
- ❑ Fibreglass/Gelcoat/PVC

SURFACE PREPARATION

Good preparation is essential. Surfaces must be sound, stable, dry, clean, and free of dust, loose, flaking, friable material and substances that may diminish adhesion.

BLOWHOLES

Blowholes and surface imperfections must be made sound and filled with Duram Resiflex FC sealant or alternatively a non-shrink mortar, finished flush with the surface. Allow to cure and dry.

PRIMING

- ❑ Surfaces should ideally be primed with Duram Primeseal MC applied at no less than 1 Lt per 4m² or Duram Primeseal SP applied at 1Lt per 7m² and allowed to dry. Primers need to be applied at no less than the relevant Duram Primer TDS.
- ❑ Duram Azcoseal/Multiseal may be used in areas where the moisture content of the surface is low, applied at no less than 1Lt per 4m².
- ❑ If there is a risk of entrapped moisture in the substrate which may cause the membrane to bubble or outgas, two coats of Duram Primeseal MC should be applied.
- ❑ Excessively porous, friable, and dusty surfaces may require an additional priming coat.
- ❑ Metal surfaces must be clean and free of contaminants and then apply Duram ME Primer. If rusted, treat to remove rust, apply a rust converter, and then apply Duram ME Primer.
- ❑ Other Duram primers suitable for use with Multithane HV include Multiseal and Superprime 711.
- ❑ Allow primers to touch dry before applying the membrane and refer to the TDS of the relevant primer.

DETAILING PREPARATION

Corners: Prime as required.

General:

- ❑ Apply Duram Resiflex FC (a flexible polyurethane sealant) and tool off to form a solid coved 45° fillet extending 10mm on to the adjacent surfaces. Allow to cure. Apply the Duram membrane directly over the sealant and on the adjacent surfaces.
- ❑ For Additional waterproofing protection or expansion joint requirements the following additional steps may be taken. Lay a strip of Duram Leak-Seal Tape (self-stick, butyl mastic waterproofing membrane with a polyester backed reinforcing fabric) over the cured polyurethane sealant pressing it firmly on the surface. Apply the Duram membrane directly over the tape and on the adjacent surfaces.

JOINTS, GAPS, AND CRACKS

General:

- ❑ Joints, gaps and cracks should be filled and sealed with Duram Resiflex FC and allowed to cure.
- ❑ Recommendation: The movement of small cracks should not be underestimated and must be covered with a flexible polyurethane sealant and an additional coat of Multithane HV.

Large or Live Cracks:

- ❑ Large cracks should be routed out to form a 'V' and then filled and sealed with Duram Resiflex FC joint sealant, as per the TDS. The sealant should be finished slightly proud of the surface and allowed to cure.
- ❑ After priming, lay a strip of Duram Leak-Seal Tape over the joint or crack pressing it firmly on to the substrate. Apply Multithane HV directly to the Duram Leak-Seal Tape and extending at least 75mm on to the adjacent surfaces.

Joints - Particularly in CFC Sheeting and Timber sheeting:

- ❑ The sheets should be fully coated with Duram Resiflex FC. Butter the edges of each sheet prior to butting the sheets together. Alternatively, the joints should be suitably filled and sealed with Duram Resiflex FC and finished slightly proud of the surface and allowed to cure.
- ❑ After priming, lay a strip of Duram Leak-Seal Tape over the joint, pressing it firmly on to the substrate. Apply Multithane HV directly to the Duram Leak-Seal Tape extending at least 75mm on to the adjacent surfaces. If the Duram Leak-Seal is not used, then follow the procedure as described under 'Large or Live Cracks'.

Waste Outlets, Penetrations and Angles

- ❑ Waste Outlets: Floor wastes and puddle flanges should be rebated into the floor to allow water to readily drain. Fill all gaps and perimeters with Duram Resiflex FC.
- ❑ Plastic or metal angles: Where required by the Building Code including exterior door barriers and plastic corner angles, or water stops they should be securely embedded in Duram Resiflex FC.

Note: Plastic floor waste, puddle flanges, plumbing and water stop angles can be primed with Duram Superprime 711.

Note: Some retrofitted flanges may not require priming, seek Duram technical assistance for guidance.

APPLICATION

- ❑ Apply Multithane HV by brush, roller, broom, or squeegee in a minimum of two coats, usually a day apart so that the dry film thickness is 1.35mm. The minimum wet coat thickness per coat is 0.667mm. The second coat is best applied within 36 hours to achieve inter-coat adhesion bonding and avoid the need to reprime.
- ❑ **Thinning:** Multithane HV can be diluted with Duram Solvent (only) to meet site demands or product viscosity. The maximum amount of solvent that can be added is 1 Litre per 15 Litre pail. It is recommended that the user contact Duram technical for assistance and guidance on method and ratio of Multithane HV to Duram Solvent. **Warning:** No alternative types of solvents should be used, using alternative types will lead to product related issues, including no setup & curing, drying, slow cure rate, gassing, gelling, failure of membrane.

Water Resistant Applications:

- ❑ Apply Multithane HV by brush, roller, broom, or squeegee to a dry film thickness 0.6 mm DFT. The minimum wet coat thickness is 0.667mm.

Single Coat Application:

- ❑ In ideal conditions - Warm, dry weather, the membrane may be applied in a single coat after correct priming and at prescribed coverage rate and dry film thickness as for 2 coats. The membrane should be monitored to ensure bubbling, pin holing or damage does not occur. If this occurs, the wet membrane should be lightly over-rolled.
- ❑ Multithane ATC is an aliphatic polyurethane topcoat which extends the life of the exposed membrane by providing UV protection.
- ❑ When top coating Multithane HV, with Multithane ATC, allow Multithane HV to cure and then apply Multithane ATC at the approximate rate of 3 to 4 m^2 per litre.

CURING

Drying and curing of the product is affected by type, dryness and porosity of the surface, temperature, humidity, ventilation, climate conditions and application technique and therefore drying and curing can only be given as a guide.

Generally, Multithane HV:

- ❑ Touch Dry: within 4 - 6 hours.
- ❑ Set Up Cure: 24 hours.
- ❑ Full Cure: 4 days/ 96 hours.
- ❑ Re-coat: between 6 - 24 hours.

TILING, TOPPING OR TOP COATING

Multithane HV is usually covered.

- ❑ **For Tiling:** Topped with a bedding of sand/cement screed. Acrylic bonding agents can be used in conjunction with sand/cement screed mixes for better strength and adhesion properties. When tiling, it is essential that adequate expansion joints are installed in accordance with good tiling practice, AS3958.1- 2007. Duram recommends to achieve increased bond strength between membrane surface and screed that on final wet coat of Multithane, dry cause sand is broadcast to achieve a textured adhesion promoted surface.
- ❑ **Covered Roofs:** Cover with drainage cell/protection sheeting geo textile fabric- drainage cell ballast, pebbles.
- ❑ **Ground Works/Landscaped Areas:** Cover with protection sheeting and drainage cell prior to gravel drainage - clean fill.

Please note for direct tile stick applications please seek advice from Duram. For exposed applications, Multithane HV must be top coated with Multithane ATC.

CLEAN UP

Avoid spills. They are difficult to clean particularly on porous surfaces. On concrete and non-porous surfaces for wet spills use a cloth and Duram Solvent.

Do not clean off carpets as it is better to allow product to cure and then shave the carpet. Equipment should be immediately cleaned with Duram Solvent.

SPECIFICATION

The information contained in this product data sheet is typical but does not constitute a full specification as conditions and specific requirements may vary from project to project. The instructions should be considered as a minimum requirement. The applicator or contractor must use their skill, knowledge, and experience to carry out additional works as may be necessary to meet the requirements of the project. Specification for specific projects should be sought from the company in writing.

HEALTH & SAFETY PRECAUTIONS

Use in well ventilated areas. Uncured product is combustible so keep all sources of ignition away from product and its vapours.

The Safety Data Sheet (SDS) must be read and understood prior to use.

CONDITIONS OF USE AND DISCLAIMER

The information contained in this TDS is given in good faith based upon our current knowledge and does not imply warranty, express or implied. The information is provided and the product is sold on the basis that the product is used for its intended purpose and is used in a proper workmanlike manner in accordance with the instructions of the TDS in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

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