

Multithane HV (High Viscosity)

High Viscosity, Liquid Applied, Polyurethane Membrane For Non-Exposed Areas

Description

Duram Multithane VERTICAL is a tough, durable, elastomeric, single pack, liquid applied, moisture curing, cross-linking, polyurethane waterproofing membrane - usually grey in colour. Multithane VERTICAL forms a tough, flexible, seamless waterproofing membrane designed for both vertical and horizontal surfaces that bonds well to most suitably primed building substrates.

Uses

Multithane VERTICAL is designed to waterproof most applications within the building and construction industry including: TILED OR COVERED AREAS Shower recess & wet areas (floors and upturns) Decks, balconies, terraces & podiums Retaining walls Planters and landscaped areas Structural slabs Tanks Pits Water retaining structures

Suitable Surfaces

Multithane VERTICAL is suitable for most building substrates including: Concrete Cement FC Sheeting Render Brick and block work. Plaster Board Masonry Bitumen (if primed with Duram Primeseal) Surfaces should be sound, stable, dry, clean and free of dirt, dust and contaminants and suitably primed.

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 but 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.

Limitations

Multithane VERTICAL should only be used on surfaces that are going to be tiled or topped.

Benefits and Advantages

Multithane VERTICAL represents the highest standards in polyurethane waterproofing technology and provides the following benefits and advantages:

Single pack - no mixing.

Fast curing (usually within 24 hour)

Permanently flexible (tests show initial flexibility of > 500%)

Suitable for immersion in water.

Can be directly tiled.

Will not bleed or stain grout or tiles.

Available in horizontal (self-leveling) and Vertical Grades (anti-slumping).

Good chemical resistance.

High strength and puncture resistant.

Provides seamless membrane (no joints or laps)

Easily repaired and or maintained.

Odourless (subjective) when cured.

Formulated to provide long term protection.

Tar free.

Easy to apply.

Has good hydrostatic resistance.

Usually grey but can be made in other colours (min qty. apply)

Precautions in Use

Risk is considered low when properly used but precautions on can, label and / or data sheets should be observed. Do not use in confined areas with poor ventilation.

Priming and 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.

Priming

Surfaces should be suitably primed with Duram Primeseal applied at no less than 1 litre per 4m² and allowed to dry. Duram Primeseal must be used for roof areas, timber and particle board surfaces, bitumen or where there is a risk of evaporation of entrapped moisture in the substrate which may cause the membrane to bubble.

Alternative primers such as Duram Multiseal may be used in non-exposed porous areas and where the moisture content of the surface is very low, applied at 3 to 4 litres per m².

Metal surfaces must be clean and free of contaminants and then metal etch primed. If rusted, treat to remove rust, apply a rust converter and then metal etch prime.

Excessively porous, friable and dusty surfaces may require an additional priming coat.

Allow primers to dry or fully cure before applying the membrane and please refer to the product data sheets of the stated primers.

Detailing Preparation

Corners

Prime as required.

Apply an adequate flexible polyurethane sealant, in accordance the manufacture's instruction and tool off to form a solid, covered or 45° fillet extending at least 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 the following additional steps should 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 (as described above) pressing it firmly on the surface. Apply the Duram membrane directly over the tape and on the adjacent surfaces.

Joins, gaps and Cracks

General

Joins, gaps and cracks should be suitably filled and sealed with an appropriate elastomeric sealant, preferably a polyurethane sealant, and allowed to cure.

Recommendation: The movement of small cracks should not be underestimated and should be at least covered with a flexible polyurethane sealant or additional coats of membrane.

Large or Live Cracks

Large cracks should be routed out to form a 'V' and then filled and sealed with a polyurethane waterproof joint sealant as per the manufacturer's instructions. The sealant should be finished slightly proud of the surface and allowed to cure.

After priming, as required, lay a strip of Duram Leak-Seal Tape over the join or crack pressing it firmly on to the substrate. The Duram membrane is then applied directly to the Duram Leak-Seal Tape and extending at least 75mm on to the adjacent surfaces.

If the Duram Leak-Seal Tape is not used then a suitable bond breaker tape (such as duct tape) at least 48mm wide should be laid over the join or crack and apply a fully reinforced Duram membrane consisting of a base coat of membrane in to which the reinforcing fabric is embedded, a saturating coat of the Duram membrane ensuring that the fabric is entirely saturated and covered and then allowed to cure. At least one or two further coats are applied as per the Duram membrane's Product Data Sheet extending at least 75mm on to the adjacent surfaces.

Joins - Particularly in CFC Sheeting and Timber Sheeting

Ideally the sides of the sheets should be fully coated with a flexible polyurethane waterproof joint sealant prior to butting the sheets together.

If not, the joins should be suitably filled and sealed with an appropriate elastomeric polyurethane waterproof sealant and finished flush with or preferably slightly proud of the surface and allowed to cure.

After priming, as required, lay a strip of Duram Leak-Seal Tape over the join, pressing it firmly on to the substrate. The Duram membrane is then applied as described under 'Large or Live Cracks'.

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 in to the floor to allow water to readily drain. Fill all gaps and perimeters with a polyurethane joint sealant.

Plastic or metal angles: Where required by the Building Code such as internal hobs and exterior door barriers and also plastic corner angels under wall boards, they should be securely embedded in to a continuous, gap free bed of a polyurethane sealant / mastic.

Application

Apply Multithane VERTICAL by brush, roller, broom and squeegee in a minimum of two coats, usually a day apart so that the minimum dry film thickness in 1.2mm. Where no primer is used, an additional coat of Multithane Std is recommended. The minimum wet coat thickness per coat is 0.5mm.

Reinforced System

In areas such as corners and over joins and cracks the membrane should be used in conjunction with a reinforcing

fabric (Duram Durascrim or fibreglass matting). This application consists of applying a base coat in to which the reinforcing fabric is laid followed by the application of a saturating coat ensuring that the product is worked well in to the fabric and that no wrinkles or bubbles are present and that fabric is entirely saturated and covered with product. Allow to cure. Apply one or two further coats of products.

Single Coat Application: In ideal conditions, the membrane may be applied in a single coat after proper priming and at the prescribed coverage rate and dry film thickness as for 2 coats. The membrane should be monitored for bubbling, pinholing and damage. Should this occur, the wet membrane should be lightly over-rolled.

Colours

Generally grey. Can be manufactured in some other colours but minimum quantities apply.

Drying and 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. Curing is dependent upon temperature, humidity, type of substrate and application technique. Generally Multithane VERTICAL dry to touch within 6 to 8 hours with full cure within 24 hours.

Storage

Keep in cool, dry place away from heat, flame or combustible material. Product contains flammable solvents. Class 3 Dangerous Goods must be declared prior to transportation. Available in 5 & 15 Lt pails.

Self life: 6 - 12 months in unopened container but best used within 6 months. As this is a polyurethane some skinning of the product may occur. This should be cut out and removed. Balance of the product will be suitable for use.

Clean Up

Avoid spills. They are difficult to clean particularly off porous surfaces. 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.

Tiling, Topping or Top Coating

Multithane VERTICAL can be covered, tiled or topped with sand: cement mix, covered with geo-textile and pebbles or tiled which will extend its life. If membrane is to be tiled, dry builders sand should be liberally broadcast into the last wet coat to provide a mechanical key. Allow to cure then remove any loose sand. Ensure surface is dry and clean. Two pack flexible tile adhesives are recommended. Acrylic bonding agents can be used in sand:cement mixes for better strength and adhesion. When tiling, it is essential that adequate expansion joints are installed in accordance with good tiling practice and AS3958.1-1991.

Safety & Precautions

Multithane VERTICAL is solvent based. The use of solvent resistant gloves and goggles (against splashes) are recommended. If spraying, which is very rare, the use of self contained breathing apparatus is recommended. If swallowed do not induce vomiting, give plenty of water to drink. Seek urgent medical advice. If in eyes, flush thoroughly with clean water, holding lid open to ensure any trapped product may be flushed away. If on skin, remove contaminated clothing and wash skin with soap and water. If inhaled, unlikely due to viscosity of the product, remove person to fresh air and apply artificial respiration if required and seek urgent medical attention. Product is flammable when wet. Keep away from all sources of ignition. Ensure adequate ventilation. Vapours may collect in low lying areas. For full safety data refer to the products Material Safety Data Sheet. Observe precautions as per label.

Tests and Technical Data

Information below is general and approximate. Duram Multithane has been tested by CSIRO [Test Report 3142] and passes AS4858:2004 Wet Area Membranes Elongation at break: 686% Class 111 High Extensibility. Resistance to Cyclic Movement: 50 cycles without rupture, tears and crazing.

Issued: 1 May 2007 | Valid to: 1 May 2012

Conditions of Use and Disclaimer

The information contained in this Material Data Sheet 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 Product Data Sheet 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.

Material Safety Data Sheet

Multithane HV (High Viscosity)

High Viscosity, Liquid Applied, Polyurethane Membrane For Non-Exposed Areas

Classified as a hazardous material according to the criteria of the NOHSC.

Identification

Product Name: Multithane HV (High Viscosity)
Other Names: Duram Multithane STD Vertical.
U.N. Number: 1263
Class: III
Hazchem 3[Y]
Code:
Poison 6
Schedule:
Pack Sizes: 5 ltr & 15 ltr pails.

Physical Description

Appearance: Coloured high viscosity liquid.
Boiling Point: Approximately 300oC
Vapour Pressure: Approximately 6.00 (Xylene)
Percent Volatiles: +-40%
Specific Gravity: +-1.05
Flash Point: 28oC (Xylene)
Flammability: 1.1-7.0%
Water Solubility: Insoluable.

Ingredients

Chemical	CAS No.	Proportion
Urethane Polymer.	Not known.	30-60%
Inert Fillers.	Not known.	10-30%
Xylene.	1330-20-7	30-60%
Minor Ingredients	Not known	<5%

Uses:

Multithane Standard Vertical mostly used for vertical structures such as shower walls, as the formula is more dense than the standard product. Not for use in exposed areas.

Health Warning Information

Health Effects

Swallowed: Ingestion could cause irritation and burning sensation.

Eyes: Irritation and burning. Long term exposure can cause damage.

Skin: Irritation burning sensation.

Inhaled: Irritation with asthma like symptoms. It is unlikely that the product would be inhaled due to its viscosity. Inhaled matter is likely to be Xylene.

First Aid

Swallowed: Do not induce vomiting. Give milk or water to drink seek medical advise.

Eyes: Flush eyes with copious amounts of clean water, lifting lid to ensure any product trapped will flush away. Seek medical attention.

Skin: Wipe product off skin, wash skin with soap and water. Apply moisturising cream.

Personal Protection: The use of solvent resistant gloves, coveralls and goggles (against splashes) is recommended. Keep flames, sparks and sources of ignition away from uncured product. Product is flammable.

Advice to Doctor

Treat Symptomatically.

Precautions in Use

Follow normal good industrial hygiene and chemical precautions, particularly in respect of flammability. Use in well ventilated areas and provide flame proof artificial ventilation if required to maintain concentrations below xylene exposure standard of 350g/m2 (TWA) 655 mg/m2 (STEL) or 100ppm.
Keep sparks and ignition sources away from product during application, as product is flammable.

Exposure Limits

Multithane STD Vertical is designed to be tiled or topped within a period of 2 weeks after application.
Multithane STD Vertical is not recommended for prolonged UV exposure.

Ventilation

Good ventilation is recommended.

Personal Protection

The use of solvent resistant gloves, coveralls and goggles (against splashes) are recommended. Keep flame, sparks and sources of ignition away from uncured product. Vapours may collect in low-lying areas. Ensure adequate ventilation.

Safe Handling Information

Storage and Transport

Store in a cool dry place, away from direct sunlight and ignition sources. Class 3 dangerous goods must be declared prior to delivery.

Suitable containers: Plain metal pails as recommended by manufacturer.
Check containers are labeled and not damaged.

Spills and Disposal

Spills: Remove sources of ignition. Prevent spills from entering drains and waterways. Absorb with sand or oil absorbing material.

discard to suitable landfill in accordance with local council regulations.

Disposal: Shovel into drums, incinerate or land tip in accordance with local regulation.

Fire / Explosion Hazard

Containers should be kept cool with water spray to prevent pressure build up. Burning product may produce dense irritating smoke. Heat may cause cans to rupture.

Issued: 1 May 2007 | Valid to: 31 May 2011

Conditions of Use and Disclaimer

The information contained in this Material Data Sheet 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 Product Data Sheet 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.