



DURABIT BITUMEN FREE

SYNTHETIC LATEX POLYMER (SBR) WATERPROOFING MEMBRANE

DESCRIPTION

Duram Durabit Bitumen Free is a water-based synthetic latex Polymer emulsion (SBR).

Durabit Bitumen Free meets the criteria of:

- AS4858:2004 Wet Area Membranes.
- AS4654.1 2012 Waterproofing membranes for external above ground use.
- The 'Green Star' environmental criteria.

Durabit Bitumen Free is an elastomeric, environmentally friendly membrane designed for both internal and external (non-exposed) applications. It cures to form a durable, odourless, impervious, seamless membrane that when fully cured does not re-emulsify even if immersed in water. Does not stain grout or tiles.

The product exhibits chemical resistance and has been formulated to inhibit biological growth.

The Duram Durabit Range of products has been an industry leader for over 20 years in Synthetic latex (SBR) waterproofing technology.

USES

SUITABLE SURFACES

Durabit Bitumen free has been formulated for most waterproofing applications requiring long term waterproofing. Ideal for non-UV exposed waterproofing applications:

- Balconies
- Terraces
- Decks
- Podiums
- Tiled or covered areas
- Shower recess & wet areas
- Retaining walls
- Planters and landscaped areas
- Structural slabs
- Fibreglass/Gelcoat/PVC
- Extruded foam
- Concrete
- **Duram Dura-Fix Mastic** and **Dura-Fix Polymod**
Tile adhesives
- Cement and cement render
- FC and CFC Sheeting
- Block & Brick work
- Masonry/Stone
- FC, CFC, asbestos and Blue board sheeting.
- Particle board (see notes below)
- Scyon & composite sheeting
- Acrylic coatings
- Vitreous, ceramic & terra cotta tiles
- Bitumen (when primed with **Duram Primeseal MC**)
- Metal (when primed with **Duram ME Primer**)
- Timber, Particle Board, Plywood (when primed with **Duram Primeseal MC**) *
- Masonite
- Plaster board

Advice from Duram should be sort for the most appropriate priming method for these surfaces; Duram has a recommended system for all the above.

***Note:** Particle Board is not regarded as a suitable substrate for wet areas and particularly shower recesses and should be replaced with CFC sheeting. As a minimum, Particle Board should be sealed with one to two coats of **Duram Primeseal MC**. All joins and corners must be sealed with a polyurethane sealant and a reinforced fabric used in conjunction with the membrane. Surfaces must be made good and should be sound, stable, dry, clean, and free of dirt, dust, and contaminants and suitably primed.

BENEFITS AND ADVANTAGES

Durabit Bitumen free is a feature packed Synthetic later (SBR) waterproofing membrane.

- Single pack (no mixing) easy to apply anti-sag technology.
- Rapid cure
- Not a hazardous product and not flammable. Water based.
- Low VOC levels. Meets the 'Green Star' environmental criteria.
- Permanently flexible (tests show flexibility > 200% - Class 11)
- Bitumen and tar free will not stain grout or tiles.
- Self-leveling 100% bonded seamless membrane (no joints or laps)
- Suitable for immersion in water
- Overcoat with **Virotoff** for trafficable areas and extended UV protection.
- It meets the Class II Medium Extensibility classification of AS4858:2004 & AS4654.1 2012.
- Can be installed in accordance with AS3740-2010 wet area and AS4654.2 exterior, in non-exposed membrane applications.
- Safe to use.
- Does not re-emulsify once fully cured, long term performance.
- Will not stain grout or tiles
- Formulated for wet area and under tile use, compatible with most tile adhesives.
- Can be rendered with polymer render and standard render (with bonding additive).
- Suitable for potable water applications
- Suitable for permanent immersion and the most demanding waterproofing applications
- Tough, Durable, and flexible
- High strength and puncture resistant
- Easily repaired and or maintained
- Easy to apply
- Odourless when cured
- Suitable to use in confined spaces
- Formulated to provide long term protection
- Inhibits mould and biological growth
- Australian Made and a long history of Australian use

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.

LIMITATIONS

- **Durabit Bitumen Free** is not designed for long term direct exposure to UV and should be tiled, topped, or painted within twelve weeks.
- **Durabit Bitumen Free** is not designed as a trafficable membrane although infrequent maintenance foot-traffic would be acceptable during the construction phase.
- **Durabit Bitumen Free** is not suitable for direct contact with high concentrations of chlorine.
- **Durabit Bitumen Free** cannot be applied directly to wet surfaces, this will cause gassing and bubbling of the membrane.
- **Durabit Bitumen Free** is not designed as a trafficable membrane although infrequent maintenance foot-traffic is acceptable. A protective coat of **Duram Virotoff** is recommended in trafficable areas e.g., terraces, balconies, barbecue areas etc.

PRECAUTIONS IN USE

Risk is considered low when used correctly. Precautions on pail label and safety data sheets should be observed. Use in well ventilated areas.

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 Hybrid** or **Resiflex FC** sealant or alternatively a non-shrink mortar, finished flush with the surface. Allow to cure and dry.

PRIMING

Surfaces should be primed with **Duram Primeseal MC** applied at no less than 1 Lt per 4m² or **Duram WB Primer** applied at 1Lt per 5m² and allowed to dry. Primers need to be applied at no less than the relevant Duram Primer TDS.

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.

Raw steel or galvanized metals - 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 **Durabit Bitumen Free** include **Duram Primeseal SP** 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 Hybrid** or **Resiflex FC** (a flexible polyurethane sealant) and tool off to form a solid covered 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 Hybrid** or **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 **Durabit Bitumen Free**.

Large or Live Cracks

Large cracks should be routed out to form a 'V' and then filled and sealed with **Duram Resiflex Hybrid** or **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 **Durabit Bitumen Free** 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 Hybrid** or **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 Hybrid** or **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 **Durabit Bitumen Free** 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 Hybrid 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

Waterproofing Applications:

Stir well. Apply **Durabit Bitumen Free** by brush, roller, broom, or squeegee in a minimum of two coats, usually a day apart so that the dry film thickness is 1.0mm DFT. The minimum wet coat thickness per coat is 0.85mm. The second coat is best applied within 36 hours to achieve inter-coat adhesion bonding and avoid the need to reprime.

Water Resistant Applications:

Apply **Durabit Bitumen Free** by brush, roller, broom, or squeegee to a dry film thickness 0.5 mm DFT. The minimum wet coat thickness is 0.85mm.

Reinforced System:

In areas such as corners and over joints and cracks the membrane should be used in conjunction with **Duram Durascrim matting**, a reinforcing polyester fabric. 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 **Durabit Bitumen Free** is worked well in to the fabric and that no wrinkles or bubbles are present and that fabric is entirely saturated and covered with **Durabit Bitumen Free**. Allow to cure. Apply two further coats of **Durabit Bitumen Free**.

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.

COVERAGE

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

Minimum 1.7L/m², i.e. 0.85L/m² per coat. A 15 Lt pail will cover 18 m² for 1 coat at 0.5mm DFT.

Water Resistant Non-Tanking Walls: Minimum 0.85L/m² at 0.5mm DFT.

The dry film thickness of the membrane on floors and tanking areas must be 1.0mm DFT with each coat being 500 microns dry film (0.5mmDFT).

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, therefore drying and curing can only be given as a guide.

Duram Durabit Bitumen Free is a fast-drying water-based product. Expected curing at 25°C at 50% RH: Touch dry: 2 to 4 hours per coat; Set: 12 hours; Full cure: 24 hours per coat. Ensure membrane is fully cured before tiling or topping.

Generally, **Durabit Bitumen Free** is touch- dry within 2 to 4 hours generally with full cure within 24 hours. Recoat between 2-24 hours.

TILING, TOPPING OR TOP COATING

Durabit Bitumen Free is compatible with most tile adhesives and most tile adhesives and 3:1 sand: cement beds.

Ideally the beds should be sealed / waterproofed to prevent the bed absorbing and holding water. Selection of the tile adhesive should be compatible with the flexibility of the substrate. Tiling must be done in accordance with AS3958.1 - 2007 with adequate expansion joints installed.

Durabit Bitumen Free can withstand maintenance traffic. For any greater exposure to traffic, **Virotuff** should be applied over the **Durabit Bitumen Free** for protection.

Durabit Bitumen Free 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, AS 3958.1.

Covered Roofs – cover with protection sheeting, **Geo Textile** (drainage cell) pebbles.

Ground Works/Landscaped Areas – cover with protection sheeting and drainage cell prior to clean fill.

COLOURS

Durabit Bitumen Free free is Black.

Colour may lighten after application in direct sunlight. Note: Slight colour variation may occur between batches.

CLEAN UP

Avoid spills. Wet spills can be cleaned with water. Spills are difficult to clean, particularly on porous surfaces. On concrete and non-porous surfaces for wet spills use a cloth and water. 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 water.

STORAGE AND PACKAGING

Keep in cool, dry place away from heat, do not allow to freeze. Product is not flammable. Available in 4 Lt and 15 Lt pails. 15 litres equates to 16 kg.

Shelf life: 12 months in unopened container, best used within that period.

SAFETY AND PRECAUTIONS

Durabit Bitumen Free is user friendly and safe to use if used as intended.

Durabit Bitumen Free is water based. Wear appropriate PPE during use. The use of gloves and goggles (against splashes) are recommended. If spraying, which is very rare, the use of a mask 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. Seek medical assistance. If on skin, remove contaminated clothing and wash skin with soap and water. If inhaled, remove person to fresh air and seek medical attention. Ensure adequate ventilation.

For full safety data refer to the SDS. Observe precautions on the label.

TESTS AND TECHNICAL DATA INFORMATION

Durabit Bitumen Free meets the Class 11 Medium Extensibility classification of AS4858:2004 as tested by BRANZ.

Durabit Bitumen Free complies with AS4858:2004 Appendix A: Durability of Waterproof Membranes.

AS3740-2010 Waterproofing of domestic wet area.

AS4654.1 2012 Waterproofing membranes for external above ground use.

'Green Star' environmental criteria (Less than 40 grams per litre).

Elongation	> 200% (Class 11 Medium Extensibility)
Moisture Vapour Transmission rate	0.25g/m ² /24 hours
Application/surface temperature range	10 ⁰ C to 35 ⁰ C Substrate Surface Temperature
Tensile strength	1.6MPa

Complete test summary and results are available from Duram upon request. Revision:1- July 2020

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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