

MasterRoc MSL 345

Elastic, waterproofing membrane for spray application in a sandwich structure with sprayed or cast in-situ concrete

Material Description

MasterRoc MSL 345 membrane is a sprayable membrane for waterproofing concrete structures. **MasterRoc MSL 345** membrane is spray-applied between layers of sprayed or cast-in-place concrete or as a standalone membrane. **MasterRoc MSL 345** membrane exhibits high bond strength to the substrates on both sides of the membrane with good elasticity. **MasterRoc MSL 345** membrane can be directly applied to damp sections of substrate.

Areas of Application

- Cast-in-place or precast
- Composite designed sandwich structures (concrete/membrane/concrete)
- Underground structures with complex profiles and geometry
- Bonds to steel and most sheet membranes and enabling interface solutions with other waterproofing methods

Characteristics & Benefits

- Dry-process material, ready-for-use
- Elasticity 80-140% between -20 and 20 °C
- Fast curing – in 4 to 6 hours (depending on environmental conditions)
- No toxic components
- Environmentally preferable
- Easily applied by spraying with standard equipment
- Two-sided bond with sprayed-concrete allows for composite behavior
- Fast curing prevents disruption of construction operations
- The fully bonded system provides excellent watertightness, preventing development of water migration in both concrete membrane interface

Technical Data

Form	Powder
Colour	Light brown
Water pressure resistance	15 bar
Bulk density (+20°C)	590 g/l ± 100g/L
Consumption, per mm of thickness	0.72 kg/m ²
Application of thickness	3-10mm
Failure strain at 28 days (at 20°C)	> 100%
Bond strength at 28 days	1.2 ± 0.2 MPa
Shore hardness	80 ± 5
Flammability	Non-flammable

Compatibility

MasterRoc MSL 345 membrane can be applied onto all types of concrete, provided that the surface is clean and without loose particles. Sprayed concrete and cast-inplace concrete with or without steel fibers may be placed against the applied membrane surface, once it has cured. **MasterRoc MSL 345** membrane can also be applied in combination with traditional waterproofing sheet membrane system approaches.

Application

If an external curing material has been applied to the shotcrete, it must be removed prior to applying **MasterRoc MSL 345** membrane. Active water must be either presealed, collected through hoses in the membrane, or covered by drainage sheets fixed to the concrete surface, for diversion into a drainage system behind the membrane. For specific application information, please refer to the **MasterRoc MSL 345** membrane Site Guide.

MasterRoc MSL 345 membrane should never be sprayed without the addition of water at the nozzle. The addition of water should be limited to between 25-50% by weight of product. The nozzle assembly must have a needle valve to allow for fine-tuning of the water and ball valve to stop and start the water flow.

MasterRoc MSL 345

Elastic, waterproofing membrane for spray application in a sandwich structure with sprayed or cast in-situ concrete

Surface Preparation

Spraying distance of **MasterRoc MSL 345** membrane should be between 1.5-2.0 m and the spraying should be done in parallel strokes, followed by a second application 90° to the first application.

Note

The nozzle should be manipulated in a way to assure full coverage of **MasterRoc MSL 345** membrane into the surface texture of the substrate. If blockage occurs, blow out the lines into a barrel of water to prevent excessive dust.

Estimating Data

Depending on the roughness of the substrate, the consumption rate of **MasterRoc MSL 345** membrane is approximately 0.72 kg/m² per mm of thickness.

If the roughness of a shotcrete layer requires more than 6 kg/m² per mm of **MasterRoc MSL 345** membrane, the placement of a layer of cementitious mortar (containing a maximum aggregate topsize of 4 mm) should be considered to provide a smooth surface. This mortar layer will significantly reduce the consumption of **MasterRoc MSL 345** membrane. Shotcrete and cast-in-place concrete can be constructed directly onto the **MasterRoc MSL 345** membrane after sufficient curing has occurred. The concrete will achieve good bonding to the **MasterRoc MSL 345** membrane.

Cleaning

Cleaning of the equipment can be accomplished by blowing compressed air through the system (aiming into the water). The nozzle and injector should be cleaned out with water.

Equipment

It is recommended that **MasterRoc MSL 345** membrane be applied by the dry spraying method with basic recommended equipment set-up.

- Rotor 12 round hole 90 mm high

- Rotor base 90 mm coupling
- Rotor dust collector 90 mm high coupling
- Spraying nozzle diameter 32 mm plastic tip with collar/conical with 18 hole water ring
- Spraying hose diameter 32 mm

Suitable spraying equipment should be fitted with a dust collection filter. Care should be taken not to create excessive dust when filling the hopper of the machine. The floor areas near the machine should be soaked with water during the application process to bind dust.

Packaging

MasterRoc MSL 345 is available in 20kg bags.

Storage & Shelf Life

MasterRoc MSL 345 membrane should be stored in original, unopened bags at temperatures between 5°C and 40°C.

MasterRoc MSL 345 membrane has a shelf life of 12 months if stored in original, unopened bags.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

MasterRoc MSL 345

Elastic, waterproofing membrane for spray application in a sandwich structure with sprayed or cast in-situ concrete

Disclaimer

MasterRoc-MSL345-ANZ-V2-0723

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MB Solutions Australia Pty Ltd publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use and for ensuring that the application and use of the product is in accordance with the manufacturer's guidelines and recommendations.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by MB Solutions Australia Pty Ltd either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MB Solutions Australia Pty Ltd, are responsible for carrying out procedures appropriate to a specific application.

MB Solutions Australia Pty Ltd

ABN 69 634 934 419
11 Stanton Road
Seven Hills NSW 2147

Freecall: 1300 227 300

www.master-builders-solutions.com/en-au

MB Solutions New Zealand Ltd

45C William Pickering Drive
Albany, Auckland
New Zealand

Phone: +64 9 414 7233

Emergency Advice:

1300 954 583 within Australia (24hr)
0800 001 607 within New Zealand

