MasterShield AC 150

Elastic architectural anti-carbonation acrylic coating

Material Description

MasterShield AC 150 is a one component, water-based, high-grade, elastic acrylic coating for the long-term weatherproofing and protection of concrete, mortar, masonry and natural stone against aggressive atmospheric attack including carbon dioxide and chloride ions. MasterShield AC 150 may be used to bridge cracks or to impart a textured finish to surfaces.

Areas of Application

MasterShield AC 150 is recommended for the protection of concrete facades, walls, bridges, balconies etc. against chloride ion or carbon dioxide ingress. MasterShield AC 150 is particularly suited to elevations subject to slight cracking. The elasticity of the product ensures that slight cyclic movement is catered for without compromising the protective layer.
The product may be applied to provide a smooth or textured finish.

Characteristics and Benefits

- UV resistant – for long life.
- Superior flexibility, elasticity and crack bridging
- Barrier to water ingress - waterproof and weatherproof-superior façade waterproofing performance.
- Protects against chloride ingress - high chloride ion resistance.
- Anti-carbonation coating – high CO_2 and SO_2 diffusion resistance.
- Allows structure to breathe - vapour permeable.
- Dirt repellent – keeps structure looking good longer.
- Decorative, durable protection - available in a wide colour range.
- Not suitable for horizontal roofs, ponds etc., or walk-on surfaces.
- Approved to Australia Paint Approval Scheme Specification APAS 0117/3 & 0118/2. Australian Standard AS4548.3.

Specification Clause

Single pack, Water-based, weatherproof, highly elastic crack-bridging acrylic coating for the protection of concrete facades, walls, bridge parapets, balconies, columns, beams etc against carbonation of concrete and ingress of water borne salts. The below technical performances as minimum would be expected.

Properties

Supply form:	Thick creamy paste
Colour:	Various
Density:	11.32kg/L
Volume solids (v/v):	50% (±2%)
Application Temperature:	+10 to 35°C
Dry & Recoat Times	Surface Dry - 4 hours Recoat - 6 hours Hard Dry - 7 days (at 25°C and at 50% humidity) Drying will take longer at lower temperatures or higher relative humidity
Water vapour transmission rate (WVT): (AS/NZS4548.5)	4.43 gm/24 hours/m^2
Water Permeability (AS 2904)	Passed
Vapour permeability (DIN 52615)	14.0gm/m^2/24hours
Vapour Transmission (AS/NZS4548.5)	27.41 gm/m^2/24hrs, Sd 1.62m
CO_2 Resistance (Engelfried method)	Rb 464.1m
Elongation (ASTM D-412)	768%
Tensile strength (ASTM D-412)	16.7kg/cm^2
Abrasion Resistance (AS 1580 459.1)	5000 rubs, no failure
Crack-bridging	5.6(crack width per unit dry film thickness)

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Low Temperature Flexibility (ASTM C-734)	Passed
Cyclone Testing (ASTM E514)	Rated E (The highest rating of 5 ratings possible)
Dirt pick up (AS 1580 481.1.4 12 months)	1 (0-5 scale, 0: no dirt)
VOC	<45g/L

Application

Substrate Condition

The substrate must be free of dirt, dust, grease, oil, mold release agents, bond breakers, laitance and any other contaminants that may interfere with adhesion. Freshly poured concrete should be left for 14 days. Faring coats may be overcoated after 24 hours. The moisture level of the substrate should not be higher than 15% by volume.
No surface water should be present.
The substrate must not be subjected to continual wetting, ponding water or hydrostatic pressure.

Priming

The surface should be primed with MasterShield PRI 155 applied by brush or roller at a rate of not less than 0.08L/m^2 or 12.5m^2/L (refer to MasterShield PRI 155 Technical Data Sheet). Alternatively, MasterShield PEL 355 or MasterShield PEL 1100 can be used.

Mixing

MasterShield AC 150 should be thoroughly stirred before use.

Method of Use

Normally two coats of MasterShield AC 150 are applied. The second coat should be applied as soon as the first coat is dry (typically 6 hours). MasterShield AC 150 may be applied by roller, brush or airless spray.
Note: Where a textured finish is required the product should be applied by medium nap roller and over-rolled with the textured roller to give the desired finish in one direction only.

Application should not be carried out if the air temperature or the substrate temperature is below 10°C or above 35°C or when humidity is very high. The temperature must not fall below 10°C during the drying process.
In exterior application avoid painting when dew or rain is likely.
Thinning: not required but may be thinned with up to 10% water for cutting in and spray applications.

Drying

The drying times indicated should be adhered to. The freshly applied material should be protected from rain and frost for 24 hours.

Estimating Data

Application Rate per coat	Film Thickness in two coats (approximately)			
	Low profile (10-12mm pile roller)		High profile (Medium black texture roller)	
	Wet	Dry	Wet	Dry
MasterShield PRI 155	80 microns	20 microns	80 microns	20 microns
MasterShield AC 150 1.5m^2/L	660 microns	330 microns	800 microns	400 microns

Note: the above are theoretical and make no allowance for loss, wastage or substrate porosity.

Cleaning

Since MasterShield AC 150 is an acrylic emulsion, tools etc. can be cleaned with water before it dries. Once cured, MasterShield AC 150 needs to be removed mechanically.
Protect Our Environment: Do not pour leftover paint down the drain. Unwanted paint should be kept in a sealed container, and then disposed of via special waste collection services. Empty paint containers should be left open in a well-ventilated area to dry out. Disposal of empty paint containers may differ between local authorities. Check with your local council first.

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Colours

MasterShield AC 150 is available in a wide range of colours.

Packaging

MasterShield AC 150 is available in 15 litre pails.

Storage & Shelf Life

MasterShield AC 150 has a shelf life of 24 months. Containers must not be exposed to excessive heat or cold. Storage must be under cover, away from direct heat, freezing and moisture, in well-sealed containers.

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.

Disclaimer

MasterShield AC 150-ANZ-V2-1125

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