

MasterProtect® 160 (formerly known as MasterSeal 160)

Protective & architectural acrylic anti carbonation coating.

DESCRIPTION

MasterProtect 160 is a tough high grade, solvent free, single component, acrylic based product for the protection of concrete, mortar, masonry, natural stone and wood against aggressive environmental attack. **MasterProtect 160** also achieves high aesthetics for quality structures. **MasterProtect 160** is available in a wide range of colours.

RECOMMENDED USES

MasterProtect 160 is used for the protection of concrete facades, walls, bridge parapets, balconies, columns, beams etc against carbonation of concrete

FEATURES AND BENEFITS

- **UV resistant and waterproof** – Provides longlife protecting the concrete from carbonation
- **Permeable to vapour** – Does not allow moisture to build up behind the product stopping damage to coating by osmosis
- **Decorative and dirt repellent** – Aesthetically pleasing as well as providing protection.
- **High CO₂ and SO₂ diffusion resistance** – Long term protection of repairs or existing structures with only two coats
- **Available in a wide colour range** – Can match the aesthetics and functional requirements.
- **Materials that create a hydrophobic surfaces on concrete (MasterProtect 360) can be used as primers to give double the protection** – Double the protection without compromising adhesion to the surface.

PROPERTIES

Aspect	: Viscous Dispersion
Consistency:	: Thick paste
Density:	: 1.35 ± 0.05 kg/litre
Volume Solids	: 46%
Application temperature	: 5°C to 40°C
DFT at 0.9 Kg/m ²	: 300 µ

Touch dry	: 1 Hour at 25°C
Recoatable:	: 4 Hours at 25°C
Full Care	: 7 Days

Elongation, (ASTM D 638)	: >300%
Tensile strength, (ASTM D 638)	: > 2.5 MPa
Adhesion, (AS 1580 408.2)	: 4/5 (excellent)
Dirt pickup (AS 1580 481.1.4, 12 months), on a scale of 0-5	: 1 (0 = 'no dirt retained')
Water vapour permeability (DIN 52615)	: 26.0 g/m ² /24 Hours
Chloride ion diffusivity	: 4.98 x 10 ⁻¹⁰ cm ² /s
Reduction in chloride ion ingress	: 97% at 28 Days
CO ₂ diffusion resistance Equivalent air layer thickness, R	: > 50m
Appearance after 2000 hr accelerated weathering	: No colour change or chalking

MasterProtect 160 is available in a broad range of colours. Light grey and concrete grey are available ex stock. All other colours will be manufactured to order in minimum quantities

APPLICATION

New masonry and concrete should be at least 14 days old before treatment and with moisture level in substrate below 7% by volume.

Surface preparation

Correct substrate preparation is critical for optimum performance. The surface to be treated must be thoroughly cleaned. Remove all traces of formwork, release agent, grease, efflorescence, laitance, algae or other contaminant that may prevent proper adhesion. Remove organic materials by scraping, brushing or high pressure water cleaning. Spores must be treated with a suitable fungicide sterilizing agent and carefully rinsed.

On non-decorated concrete surface containing blow holes and/or minor irregularities, and on some rough rendered or dashed surface, it is advantageous to use MasterEmaco N5100 to



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MasterProtect® 160

close the surface, thus preventing the possibility of pinholes occurring. Cracks wider than hairline should be patched using MasterBrace 1438 or sealed using acrylic caulk before treatment.

Priming

Prime the surface using Masterseal 399 or MasterKure 181 as primer.

Allow the primer to dry for 2-3 hr (at temp. >25°C) before applying **MasterProtect 300**. At lower temperatures, allow a longer time to dry.

Note: If MasterKure 181 is used as the curing membrane, priming may not be required. Contact BASF for advice.

Mixing

MasterProtect 300 is ready for use. Stir (do not dilute) to obtain a uniform mixture before use.

Application

Apply **MasterProtect 300** in one coat using airless spray to achieve a wet film thickness of 650µ or in two coats each of 325µ WFT using roller or brush, with the second coat applied 2 – 4 hrs after the first and at right angle to it. The prepared substrate must be air-dry when the first coat is applied. Where a textured finish is required use a medium nap roller to apply the product and over roll with a textured roller to give the desired finish in one direction only.

Only apply **MasterProtect 300** when the ambient temperature and substrate temperature are at least 5°C, and will not fall below 5°C within 24 hours. To avoid condensation which influences the adhesion negatively, surface temperature during application should be at least 3°C higher than the dew point.

Curing

MasterProtect 300 is self-curing.

Equipment

Airless sprayer, medium nap roller or brush.

ESTIMATING DATA

The coverage rate is strongly influenced by the roughness and porosity of the substrate. Minimum recommended rate of application for **MasterProtect 300** is 0.45 Kg/m²/coat. Each pack of 25kg is sufficient for an area of 28 m² to achieve the recommended final dry film thickness of 300µ.

PACKAGING

MasterProtect 300 is available in 20 litres containers.

SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment.

Shelf life is 12 months when stored as above.

PRECAUTIONS

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

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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.

NOTE

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

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