

M-CRETE 300 – ACID RESISTANT EPOXY NOVOLAC CONCRETE SCREED

M-CRETE 300 – Acid Resistant Epoxy Novolac Concrete Screed

M-CHEM 300 – Acid Resistant Epoxy Screed is formulated using a highly acid resistant Epoxy Novolac Resin System.

M-CHEM 300 – Acid Resistant Epoxy Screed is solvent free and has been designed for various **concrete repair** applications and to protect concrete surfaces in high traffic areas where concentrated acids and industrial chemicals are present.

The product can be applied to new or old concrete and should be applied at a minimum thickness of 5mm with a maximum of up to 20mm.

Typical Uses

- Chemical Drop-Down Areas
- For **Chemical Resistant Floor Repairs**
- Re-lining Chemical Drains & Channels
- Lining for **Acid Bunds & Containment Areas**

Application Guide

Surface Preparation

Existing Concrete

- If the concrete surface is contaminated, pressure wash using clean water.
- Once the concrete is dry, lightly abrasive blast or scarify taking care not to expose the aggregate.
- Clean all dust and debris from the surface and take several moisture readings and prime with **M-PRIME 100 – Low Viscosity Epoxy Concrete Primer** or **M-PRIME 104 – Damp Tolerant Concrete Primer** dependant on moisture readings obtained.
- Apply M-PRIME 100 or M-PRIME 104 at a target wet film of 150 microns, allow to cure before overcoating.
- For very porous surfaces a second coat of primer may be required.



New Concrete

- Allow new concrete to cure for a minimum of 21 days lightly abrasive blast or scarify to remove any surface laitance.
- Clean all dust and debris from the surface and take several moisture readings and prime with M-PRIME 100 – Low Viscosity Epoxy Concrete Primer or M-PRIME 104 – Damp Tolerant Concrete Primer dependant on moisture readings obtained.
- Apply M-PRIME 100 or M-PRIME 104 at a target wet film of 150 microns, allow to cure before overcoating.

For very porous surfaces a second coat of primer may be required.

Environmental Checks

Prior to mixing, please ensure the following:

- The base component is at a temperature between 15-25°C.
- Do not apply the material when the ambient or substrate temperature is below 10°C or less than 3°C above dew point.

Mixing Contents

1 x 30kg Unit of M-CRETE 300 consists of:

- 1 x 4ltr of M-CRETE 300 Screed Resin (grey or red) and Activator (amber).
- 1 x 20ltr pail containing 24kg of aggregate.

Mixing

- Empty the contents of the M-CRETE 300 – Activator into the M-CRETE 300 – Base tin and mix using a low-speed electric paddle mixer.
- Ensure all the material is thoroughly mixed and streak free, pay attention to the sides and bottom of the tin. Once mixed, pour the resin into a forced action mixer.
- Add approximately half of the supplied aggregate to the resins in the forced action mixer and mix for 2/3mins.
- Once the resins and aggregate are fully wetted, gradually add the remainder of the aggregate to the resins.

Warning

- When the product is being applied to concrete surfaces lower than 12°C, add 50% of the aggregate and check the consistency of the mix. Colder temperatures will thicken the resin and therefore less aggregate is required to create a trowelable screed.

A: Tower Court, YO30
4XL



T: 01904 809 773



E:
info@maxkote.co.uk



W:
www.maxkote.co.uk

- Once the resins and aggregate are full wetted, gradually add the remainder of the aggregate until the required consistency is achieved. Do not worry if you have some aggregate left.

APG-REV2- 2022

Use all mixed material within 25 minutes at 20°C.

Product Application

- To apply M-CRETE 300 chemical Resistant Epoxy Screed Empty the contents from mixer onto the repair area.
- Spread the screed with a trowel or rubber squeegee and then smooth off to the correct level.
- Once the repair area has been filled with material spray clean water onto the face of the trowel and skim the surface of the repair.

Technical Information

Appearance	Base Activator Aggregate	Grey thixotropic liquid Amber liquid Grey milled powder
Mixing Ratio	By Weight	4.7:1
Density	Base Activator Aggregate Mixed	1.41 1.02 2.7 2.16
Solids Content		100%
Sag Resistance	Nil at	20mm
Usable Life	10°C 20°C 30°C	50 minutes 25 minutes 12 minutes
Coverage	30kg/ 13.9ltrs of mixed product will give the following coverage rates	2.78m ² at 5mm 1.39m ² at 10mm 0.695m ² at 20mm

A: Tower Court, YO30
4XL



T: 01904 809 773



E:
info@maxkote.co.uk



W:
www.maxkote.co.uk

Cure Times at 20°C	Minimum overcoating time	6 hours
	Foot Traffic	24 hours
	Vehicles	48 hours
	Chemical immersion	5 days
Storage Life	Unopened and stored in dry conditions (15-30°C)	5 years
Abrasion Resistance	Taber CS17 Wheels/1 Kg load	145mg loss/1000 cycles 0.53cc loss/1000 cycles
Direct Pull off Adhesion	Tested to ASTM D4060	35kg/cm ² (500psi) Concrete failure
Impact Resistance	Tested to ASTM G14	1.8 joules
Compressive Strength	Tested to ASTM D 695	880kg/cm ² (12500psi)
Flexural Strength	Tested to ASTM D790	490kg/cm ² (7000psi)
Shrinkage	Tested to ASTM C246	Nil

Chemical Resistance Guide

Chemicals & Concentrations

Test Temperature

A: Tower Court, YO30
4XL



T: 01904 809 773



E:
info@maxkote.co.uk



W:
www.maxkote.co.uk

Acetic Acid 10%	30 °C
Ammonia Hydroxide 30%	45 °C
Benzene 100%	35 °C
Butanol 100%	40 °C
Chromic Acid 10%	40 °C
De-ionised Water	40 °C
Ethanol 100%	45 °C
Hydrobromic Acid 40%	30 °C
Hydrochloric Acid 36%	35 °C
Nitric Acid 10%	30 °C
Phosphoric Acid 75%	45 °C
Steam out	180 °C
Sulphuric Acid 98%	40 °C
Toluene 100%	40 °C
Xylene 100%	40 °C

Legal Notice

The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control.

It is the responsibility of the customer to determine the products suitability for use.

Maxkote accepts no liability arising out of the use of this information or the product described herein.

A: Tower Court, YO30
4XL



T: 01904 809 773



E:
info@maxkote.co.uk



W:
www.maxkote.co.uk

A: Tower Court, YO30
4XL



T: 01904 809 773



E:
info@maxkote.co.uk



W:
www.maxkote.co.uk