



Duropoxy Wear MC

Solvent less epoxy coating

Duropoxy Wear MC is a two component heavy duty, 100% solids, high build, highly chemical resistant and heavy duty maintenance coating suitable for a variety of commercial and industrial floor, wall and steel protection applications. Duropoxy Wear MC provides a decorative, hygienic, dust free coating with heavy abrasion resistance. Duropoxy Wear MC is resistant to hydrogen sulphide that may be present in pipes and plants for the treatment of sewage. It is recommended that Duropoxy Wear MC is applied in a three coat application when used in particularly aggressive and harsh environments. This three coat application will give a total cured maintenance coating thickness of 0.4 - 0.5 mm. Duropoxy Wear MC can be applied by using a roller, brush or with airless spray equipment. The working time of Duropoxy Wear MC, as shown below, is long enough to render the use of twin spray heads unnecessary. Duropoxy Wear MC is volatile organic compounds free (Nil V.O.C.) is suitable for coating and protecting structures that are in contact with food stuffs.

APPLICATION

- Food, Beverage Facilities including Abbatoirs
- Chemical Storage Tanks and Bunds
- Protective Coatings for Concrete and Steel
- Car Parks and Ramps including Forklift Areas
- Factory and Warehouse Floors
- Mechanical Workshops
- Sewage Treatment Plants and Pipes
- Plant Rooms and Machine Rooms

PROPERTIES

Duropoxy Wear MC is available in a Standard Cure version. The properties of each are as follows:

	Duropoxy Wear MC (Standard Cure)
Mixing Ratio by Volume	: Part A - 3 Parts
	: Part B - 1 Part
Mixing Ratio by Weight	: Part A - 4 Parts
	: Part B - 1 Part
Coverage - 5kg Kit	20 - 25m ²
Coverage - 20kg Kit	80 - 100m ²
Working Time	2 Hours at 25°C
Tack Free Time	4 Hours at 25°C
Re-Coating Time	8 Hours at 25°C

MIXING PROCEDURE

Add the entire contents of Part "B" into the Part "A" tin, there is enough space to combine both parts in the Part "A" container. Mix the two parts together thoroughly for at least 3 minutes by hand or using a mechanical stirrer on a low speed of 200rpm or lower. Ensure the mixture is thoroughly mixed, this is essential as incomplete mixing will result in poor physical properties.

CONCRETE SURFACE PREPARATION

Concrete should be free from grease and oil. If necessary, clean with industrial heavy duty degreaser. When clean, remove surface laitance. This is best done by mechanical abrasion such as scabbling, grit blasting or grinding. If this is not possible acid etching must be carried out. Mix concentrated hydrochloric acid with equal volume of water and spread at the rate of 0.5 litre per square metre of concrete surface. Allow to react for about 10 minutes and wash the area thoroughly and scrub with a stiff bristled broom to remove loose sand. Allow to dry for 24 hours. For maximum adhesion concrete should be surface dry.

METAL SURFACE PREPARATION

Metals should be grit blasted to AS CK 9.4 - 1964 Class 3 finish. If this is not possible, mechanically abrade the surface to a clean, bright metal surface. Once this abrasion is complete, degrease the surface by flooding with an industrial grade degreaser. Wire brushing is not entirely satisfactory and gives minimal adhesion only.

PAINTED SURFACE PREPARATION

Concrete:

The surface may be either flame-cleaned, or mechanically treated with a scutching tool. To remove all traces of paint. Complete the preparation by diamond grinding or scabbling.

Metals:

Steps should be taken to remove all paint and/or galvanizing. Good quality paint stripper should be used, followed by grit blasting or grinding to a bright metal finish.

APPLICATION

It is recommended that Duropoxy Wear LVS - Low Viscosity Sealer is used as a primer on particularly porous surfaces before the application of Duropoxy Wear MC. Duropoxy LVS can be applied either by roller, brush or spray equipment at a rate of 8-10m² per litre. Single coat application of Duropoxy LVS is generally all that is required and thinning is not recommended. Recoat or overcoat approximately between 8 – 24 hours after application of Duropoxy LVS.

Duropoxy Wear MC can be thinned up to 10% with Duropoxy Thinners to promote easy working. Add a maximum of 10% Duropoxy Thinners on the first coat, 5% on the second coat and so on. However, care must be taken to ensure that all thinners have evaporated before applying subsequent coats.

If more than 24 hours elapses between coats, it is necessary to thoroughly abrade the coated surface to a uniform dull finish using 60 grit abrasive paper.

NON SLIP SURFACES

If you wish to have a non slip surface, broadcast epoxy quality sand, glass beads, carborundum or silicone oxide over the freshly applied surface. This can either be left as is for an aggressive non slip surface, or can be re-coated with Duropoxy Wear MC to create a less aggressive non slip surface. Please contact our technical department for further information.

CURED PROPERTIES

Maximum Operating Temperature	100°C
Compressive Strength - ASTM 695	70MPa (MC2 Only)
Bond Strength Concrete - ASTM 454	>3MPa (Concrete Failure)
Tensile Bond Strength Steel - ASTM 1002	13MPa
Modulus of Elasticity - ASTM 695	2.4GPa
Tensile Strength	30MPa
Hardness - Barcol 935	80 at 25°C
Dielectric Strength 50HZ, 25°C	17Kv per mm

HEALTH AND SAFETY

Use disposable rubber gloves to protect hands and maintain proper industrial hygiene. Avoid prolonged contact with skin, wash affected areas with soap and warm water. For further information regarding health and safety please refer to Bulletin No. 100 and the Material Safety Data Sheet for Duropoxy Wear MC.

CHEMICAL RESISTANCE

The following chemical resistance is based on tests conducted under continuous immersion conditions. In practice Duropoxy Wear MC based floor and wall surfaces are cleaned regularly, exposure to chemicals is limited to a few hours at a time and the severity of attack is correspondingly reduced. The data given below applies to continuous exposure conditions.

Chemicals which Duropoxy WearMC has limited Resistance	Chemicals to which Duropoxy Wear MC has full Resistance		
Distilled Water - boiling	Distilled water at 40°C	Acetic Acid 5%	Ammonium Chloride
Nitric Acid 55% Concentrate	Petrol	Tartaric Acid 5%	Calcium Hypochlorite
37% Formaldehyde	Kerosene	Citric Acid 5%	Copper Nitrate
Vinegar	Diesel Fuel	Linseed Fatty Acid	Ethylene Glycol
Sulphuric Acid Concentrate	Crude Oil	Sodium Hydroxide	Ferric Chloride
Phosphoric Acid	Toluene	Ammonium Hydroxide <15%	Ferric Sulfate
Lactic Acid - 5%	Carbon Tetrachloride	Liquid Detergent	Gasoline
Cresylic Acid	Styrene Monomer	Sodium Carbonate 10%	Glucose
Phenol Benzyl Alcohol	Glycerin	Sodium Bi-sulphate 10%	Hydrogen Peroxide 10%
Sodium Hypochlorite <4%	Hydrogen Sulphide	Methylated Spirits	Nitric Acid
Sodium Hydroxide <20%	Hydrochloric Acid <31%	Cola and Similar Soft Drinks	Potassium Carbonate
Turpentine	Sulphuric Acid <70%	Acetone	Pottassium Chloride
	Chromic Acid 1%	Ethyl & Isopropyl Alcohol	Xylene
	Aluminum Sulphate	Ammonia Liquid	Sodium Chlorate

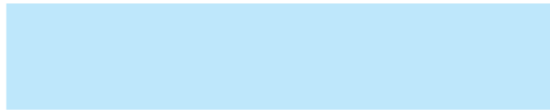


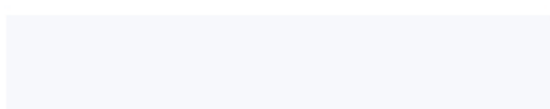
TECHNICAL SERVICE

All purchasers of Duropoxy Wear products are invited to avail themselves of our technical service on epoxy resins. The methods and systems outlined in this bulletin are the best available at the time of print, however continual research and development is being carried out and could result in change without prior notice.

AVAILABILITY

Duropoxy Wear MC is available in 5kg (4 Litre) and 20kg (16 Litre) kits. In each kit Part "A" and Part "B" are measured in the correct mixing ratio for immediate use. Duropoxy Wear MC is available in a variety of colours. Please see the following colour chart for more information.

STANDARD COLOURS FOR DUROPOXY WEAR MC

	Carribbean
	Blue
	Pacific Blue
	Charcoal
	Dark Grey
	Mid Grey
	Standard Grey
	Koala Grey
	Safety Yellow
	White
	Black

Please Note; These colours are a digital/print representation of our standard Duropoxy Wear MC colours. The finished product may be different to these colours. For accurate colour samples please contact our Technical Department for sample Duropoxy Wear MC colour chips.



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The information provided in this data sheet is correct at the time of printing (albeit is subject to change at any time) and is intended to give a simple description of the product and its capabilities. In practice, the substrate, intended surface to be treated and environmental conditions vary widely, making it essential for the user to determine the products suitability for a particular application and to ensure that the product is not used beyond its physical limitations. If in doubt contact the manufacturer. The product will perform as described herein provided it is applied in accordance with the manufacturer's instructions as stated in this data sheet and provided that the building and installation is structurally sound and the application is carried out competently. Durotech terms and conditions of sale apply.