

MC-DUR 1022

High performance epoxy resin floor coating.

PRODUCT DESCRIPTION:

- **MC-DUR 1022** is a two-component solvent based, Epoxy resin coating system supplied in pre-weighed packs ready for on-site mixing and use.
- The cured film forms a hard but flexible coating with excellent adhesion to clean concrete, sand/cement and granolithic screeds, and certain metal surfaces. It cures to a semi-gloss, impervious finish which is easily cleaned.
- The product is available in a range of standard colours and is also available in a clear grade.
- Standards compliance: **MC-DUR 1022** complies with BS 476, Part 7: 1971 - Class 1 spread of flame.

PRODUCT PROPERTIES:

- Hard wearing - durable, low maintenance costs.
- High resistance to a wide range of industrial chemicals.
- Hygienic - impervious finish provides easily cleaned surface.
- Attractive - available in a range of colours to improve the working environment.

AREAS OF APPLICATION:

- To provide a hard wearing, easily cleaned, attractive floor coating in areas where high resistance to chemical attack is required. It is suitable for use in production assembly areas, workshops, dairies, soft drinks production and bottling plants, kitchens, showrooms etc. It is particularly suitable in wet working areas and where chemical spillage is likely, e.g. plating shops, processing plants, dye works etc.
- It can also be used as a final coating and sealer for epoxy floor screeds to provide a more durable and easily cleaned surface where high impact is desirable.
- A clear version is also available to seal Terrazo and other type of floors. Typical areas of application include:
 - Airport Lounge, terminals etc.
 - Hospitals
 - Shopping malls & convention centres
 - Pharmaceuticals plants
 - Educational institutions
 - Residential/Commercial buildings

INSTRUCTION OF USE:

- **Specification:** Epoxy floor coating: The floor coating shall be **MC-DUR 1022**, a two-component solvent based Epoxy suitable for application by spray, brush or lambswool roller. The coating shall be applied in two coats to achieve a total dry film thickness of 90 microns (w.f.t. 100 microns/coat).
- **Surface preparation:** It is essential that **MC-DUR 1022** is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the floor coating and substrate. Because **MC-DUR 1022** is a relatively thin coating, the substrate must be fine textured. Any surface irregularities may show through causing excessive wear on high spots and changing the perceived colour of the coating.

New concrete floors: These should normally have been placed for at least 28 days and have a moisture content of less than 5%. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excessive laitence can be removed by the use of light mechanical scabbling, grinding or grit/captive blasting methods. Dust and other debris should then be removed by vacuum cleaning.

Old concrete floors: A sound, clean substrate is essential to achieve maximum adhesion. Remove laitence by light mechanical scabbling, grinding or grit/captive blasting. Oil and grease penetration should be removed by the use of a proprietary chemical degreaser or by hot compressed air treatment.

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Steel surfaces: Steel substrates should be grit blasted to surface quality SA 2½(BS 4232: Second Quality) and primed with a single coat primer.

Epoxy screeds: **MC-DUR 1022** can be applied to MC epoxy resin screeds. High spots or trowel marks should be rubbed down and dust and other debris removed by vacuum cleaning.

- **Mixing:** The base and hardener components of **MC-DUR 1022** should be thoroughly stirred before the two are mixed together. The entire contents of the hardener container should be poured into the base container and the two materials mixed thoroughly, then add the colour pot and mix for at least 3 minutes. The use of a heavy-duty slow speed, flameproof or air driven drill fitted with a MC Mixing Paddle (MR3) is desirable. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.
- **Application:**
 - The mixed **MC-DUR 1022** should be applied to the prepared surface using airless spray, brush or lambswool roller. Ensure that the area is completely coated and that 'ponding' of the material does not occur.
 - The second coat may be applied as soon as the first coat has initially dried (typically 12 to 18 hours). The time will be dependent on the type of surface and the ambient conditions.
- **Maintenance:** The service life of a floor can be considerably extended by good housekeeping practices. Regular cleaning of **MC-DUR 1022** may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 50°C.
- **Cleaning:** **MC-DUR 1022** should be removed from tools and equipment with MC-Thinner EP immediately after use. Hardened material can only be removed mechanically.
- **Limitations:**
 - **MC-DUR 1022** should not be applied onto surfaces known to or are likely to suffer from rising dampness or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A or by a Hammond concrete/mortar moisture tester type COCO.
 - MC does not recommend acid etching as a method of floor preparation. If used, the method should be approved by the project consultant.
 - The durability of **MC-DUR 1022** in foot traffic areas is reduced in areas of very heavy traffic such as around work benches, drinks machines etc. It is advisable to either specify additional coats in such areas or specify a higher build system.
 - **MC-DUR 1022** should not be applied to asphalt floors or PVC tiles or sheet.
 - In common with all epoxy materials some slight shade changes may be experienced over the long term when placed in adverse exposure conditions. Any such change in shade is not regarded as being detrimental to performance.
 - **MC-DUR 1022** should not be installed at temperatures below 5°C.

TECHNICAL SUPPORT:

- MC offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

DESIGN CRITERIA:

- **MC-DUR 1022** is designed for application in two coats to achieve a total dry film thickness of 90 microns.
- Substrates should be dry and not suffer, or be likely to suffer, from rising damp. If necessary, suitable damp-proof membranes should be installed to prevent this. Substrates should not have a relative humidity greater than 75% at the time of installation.

PROPERTIES: The values given below are average figures achieved in laboratory tests at 25°C and 35°C. Actual values obtained on site may show minor variations from those quoted.

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Physical properties:	@ 25°C	@ 35°C
Pot life*	4 hrs	1.5 hrs
Time between coats	6-24 hrs	4-16 hrs
Initial hardness	24 hrs	18 hrs
Full cure	7 days	5 days
Wet film thickness (per single coat)	100 microns	
Total dry film thickness (2 coats)	90 microns	

Note: After the pot life has expired, the material, although not hardened, increases in viscosity and the characteristics of the product change. Excess material should be discarded after this point.

Chemical properties: MC-DUR 1022 is resistant to a wide range of chemicals. Few of them are listed below. Specific data will be available upon request.

Sodium hydroxide 25%	: Resistant	Citric Acid 10%	: Resistant
Hydrochloric Acid (10%)	: Resistant	Lactic Acid (10%)	: Resistant
Phosphoric acid (10%)	: Resistant	Petrol	: Resistant
Engine Oil	: Resistant	Sulphuric Acid (10%)	: Resistant

Note: Colour change may occur but no change in protective performance. Good housekeeping is essential in areas where chemical spillage is likely to occur. It is especially important that such spillage should not be allowed to dry since very much higher concentrations of chemicals will then result.

PRODUCT CHARACTERISTICS:

Coverage	<p>MC-DUR 1022: 10 m²/litre @ 100 microns wft per coat (2 coat application recommended)</p> <p>MC-DUR PRIMER: 4.0-5.0 m²/litre</p> <p><i>Note: Coverage figures given are theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced, this will vary with site and application conditions.</i></p>
Estimating supply	<p>MC-DUR 1022 (Including colour pack): 4.5 litre/ packs</p> <p>MC-DUR PRIMER: 1 and 4 litre/ packs</p> <p>MC-Thinner EP: 5 litre/ tins</p>
Shelf-life & Storage	<p>MC-DUR 1022 and MC-Thinner EP have a shelf-life of 12 months if kept in a dry store between 5°C and 30°C in the original, unopened packs. All products should be stored in accordance with local regulations.</p>
Precautions Health and safety	<p>MC-DUR 1022, MC-DUR PRIMER and MC-Thinner EP should not come into contact with skin and eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves, and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provide additional skin protection.</p> <p>In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.</p>
Fire	<p>MC-DUR 1022 and MC-Thinner EP are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO₂ or foam. Do not use a water jet.</p>
Flash points	<p>MC-DUR 1022: 23°C MC-Thinner EP: 33°C</p>
Disposal	<p>Spillages of component products should be absorbed onto earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal authority regulations.</p>

Safety Advice: Please take notice of the safety information and advice given on the packaging labels and safety information sheet.

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition **01/2025**. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.