

MSL 2

Self-Smoothing Epoxy Floor System

HIGH PERFORMANCE, EPOXY RESIN FLOORING SYSTEM, SUPPLIED AS FOUR PARTS IN A PRE-MEASURED PACK FOR EASE OF ON SITE MIXING AND USE. THE CURED RESINS FORM A PIGMENTED, SMOOTH, TOUGH 2-4 mm LAYER, WHICH CAN BE EASILY CLEANED

Features

- Hard wearing - durable with low maintenance costs
- Resistant to a wide range of CHEMICALS and liquids
- Seamless - easily cleaned to maintain high standards of hygiene
- Self-smoothing properties provide a flat high gloss finish

STANDARD COLOURS

Available to any standard RAL Card upon request

DESCRIPTION

A specialist applied, self-smoothing, epoxy resin floor finish combining outstanding wearing properties with CHEMICALS resistance and decorative properties. Ideally suited in areas where a seamless, joint free finish is required and maximum cleanliness is essential. Laboratories, clean rooms, and general light industry are just some of the environments that can benefit from this system.

SURFACE PREPARATION

It is essential that MSL 2 is applied to sound, clean and dry surfaces to ensure maximum adhesion.

MSL 2 is designed for use as a thin coat application.

NOTE: Thin coatings will reflect the surface texture of the substrates and as such high spots may lead to premature wear of the coating, thus surface preparation techniques should be chosen appropriately. The ideal substrate for application is a flat, lightly textured, clean concrete surface.

SUBSTRATE PREPARATION

The concrete surface must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues etc., that will inhibit adhesion to the substrate.

Use a suitable degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated concrete surfaces should be mechanically prepared, either by scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying MSL 2. Overwatered or otherwise weak concrete surfaces must also be suitably prepared down to sound, solid concrete by mechanical methods. Dust and other debris should be removed using vacuum equipment.

NOTE: Any joints or cracks in the concrete base where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface. New concrete slabs must be allowed to cure for at least 14 days.

PRIMING

All areas to be treated with MSL 2 must first be primed with MKP COATING SYSTEM MPR! Solvent Free Epoxy Primer. One or more coats of primer may be required depending upon the condition and porosity of the concrete substrate. High porosity substrates may be revealed after preparation and will be evident by their rapid suction and absorption. If in doubt use two coats of MKP COATING SYSTEM MPR 1 Solvent Free Epoxy Primer. Poorly primed surfaces may lead to blistering or pin holing in the cured resin.

MIXING

The individual contents of the MSL 2 should be thoroughly stirred before being mixed together. Mix Part D with Part A. Ensure smooth mixing. The entire contents should be poured in to a larger mixing vessel to incorporate the Part B and Part C. The four materials are mixed thoroughly with a spiral mixing paddle in a slow speed drill. The mixing of all the four should continue until a consistent homogenous mix is achieved. One or more packs may be mixed simultaneously to ensure a quick rate of installation.

NOTE: Once mixed, the MSL 2 will generate heat and lose working time if it is left in the mixing container or otherwise kept in bulk.

APPLICATION

The mixed MSL 2 material should be applied to the prepared and primed surface without delay using a trowel or depth set rake to achieve the desired thickness. As soon as the MSL 2 has been laid and as work progresses, the surface should be gently rolled with a spiked roller in order to release any entrapped air from the mix also to blend out any trowel marks. The work area should be protected during the installation process and during the initial curing time to ensure that no debris can contaminate the surface of the resin, as this will lead to unwanted blemishes in the hardened, cured surface.

LIMITATIONS

MSL 2 should not be applied to floors that are known to have rising moisture or have relative humidity of greater than 75% at the time of application. These products should not be applied in temperatures less than 10°C or where the ambient relative humidity is greater than 85%. Should it be determined that moisture surface should be treated with MKP DPM Surface Damp Proof Membrane mixed and applied in accordance with the recommendations in the MKP product data sheet. Once the mixed material has exceeded its pot life, the viscosity and the characteristics of the product will change and any unused product should be discarded at this time. Do not steam clean or use hot water above 55°C to wash the surface.

NOTE: All products are manufactured under strict Quality Assurance procedures, however it is recommended that where colour consistency is essential, wherever possible, products from one batch should be used.

CLEANING

MSL 2 can be removed from tools and equipment by using MKP Thinner immediately after use. Any hardened material will need to be removed mechanically.

PROPERTIES

The values shown are typical of results obtained in the laboratory at $27 \pm 1^\circ\text{C}$. Actual performance values obtained on site may vary from those quoted.

PHYSICAL PROPERTIES

MSL 2	@ $27 \pm 1^\circ\text{C}$
Pot life	30 mins
Initial hardness	24 hours
Full cure	7 days
Bond strength	$> 1.5 \text{ N/mm}^2$
Compressive strength	70 N/mm^2
Flexural strength	31 N/mm^2
Tensile strength	23 N/mm^2
Shore D Hardness	> 70

COVERAGE ESTIMATES

Pack size	Coverage
16kg	Approximately
Part A 3.80kg	$4.70 \text{ m}^2 @ 2 \text{ mm}$
Part B 1.70kg	thick
Part C 10kg	
Part D 500g	
Mixed Density	$1.65 - 1.70 \text{ gm/cc}$
11kg	Approximately
Part A 3.80kg	$7.5 \text{ m}^2 @ 1 \text{ mm}$
Part B 1.70kg	thick
Part C 5kg	
Part D 500g	

Mixed Density	1.45 - 1.50 gm/cc
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NOTE:These figures are theoretical, due to the wastages and the variety and nature of substrates practical coverage figures may be reduced.

STORAGE AND SHELF LIFE

MSL 2 has a shelf life of 12 months if kept in a dry, store between 5°C and 30°C in the original unopened containers. The product should be protected from frost, away from direct sunlight and sources of heat.

CHEMICALS RESISTANCE

MSL 2 is resistant to a wide range of liquids and CHEMICALS, for specific information please refer to the following MKP "CHEMICALS Resistance" chart.

CHEMICALS RESISTANCE CHART SUMMARY OF RESULTS

	Concentration in %	MSL 2
Acetic acid	10	R
Acetic acid	50	N
Acetone	100	N
Ammonia	10	R
Ammonia	35	L
Beer	100	R
Citric acid	50	R
Formic acid	50	N
Hydrochloric acid	25	R

Hydrogen Peroxide	20vol	R
Kerosine	100	R
Lactic acid	25	R
Methylated Spirit	100	N
Milk	100	R
Nitric acid	30	R
Nitric acid	70	N
Oleic acid	100	R
Orange Juice	100	R
Petrol	100	R
Phosphoric acid	10	R
Red Wine	100	R
Salt	Saturated	R
Sodium hydroxide	50	R
Sodium hyperchlorite	15	R
Sugar	Saturated	L
Sulphuric acid	10	R

Sulphuric acid	25	R
Sulphuric acid	75	R
Xylene	100	L
	R	28 Days +
Limited Resistance	L	up to 7 Days
Not Resistant	N	
Short Term Resistance	S	up to 1 Day

Note: These results are based on immersion testing and MKP CHEMICALS products may appear less resistant when compared with other manufacturer's surface swab test results.

COLOURS

MSL 2 is available to any standard RAL Card colours upon request.

MAINTENANCE

Good housekeeping and regular cleaning is essential in order to maintain the performance of MSL 2. It is particularly importance in areas that are subject to regular spillage of CHEMICALS. Spillages should not be allowed to dry, which results in higher concentrations of the CHEMICALS, which may lead to early failure. Regular cleaning of the surface with a rotary scrubbing machine in conjunction with a water miscible cleaning agent or hot water washing at temperatures up to 50°C is recommended.

PRECAUTIONS

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to epoxide materials. Always wear gloves and eye/face protection is necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL/SPILLAGE

Spillage of any of the component products should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

For further information please refer to the Product Safety Data Sheet.

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.