

EPISOL® MC

SELF-LEVELING EPOXY CAST FLOOR 5 TO 9 MM



DESCRIPTION

EPISOL® MC is a liquid-tight, thick, 3 component, self-leveling, epoxy cast floor of 5 to 9 mm thick with very high mechanical and chemical resistance.

BENEFITS

Combines the advantage of rapid installation and aesthetic properties of a cast floor with the mechanical and chemical properties of a liquid-tight trowel mortar.

- High chemical resistance
- High impact resistance
- High wear resistance
- Excellent flow
- High gloss
- High chemical resistance
- Easy to maintain
- Liquid tight
- Good UV resistance

FIELD OF APPLICATION

Very thick epoxy cast floor for heavy industrial applications:

- Production and assembly halls
- Warehouses
- Garages
- Workhouses
- Laboratories
- Cleanrooms
- Pharmacy
- Logistics
- etc...

APPLICATION

Note: The following is a typical application description. In case of other jobsite parameters, please contact our technical department.

PRELIMINARY ANALYSES

Before starting the substrate preparation and applying the products, it is important to test various parameters in order to achieve a good and sustainable result.

Compressive strength of the substrate: min. 25 N/mm²

Tensile strength of the substrate: min. 1.5 N/mm²

EPISOL® MC can be applied on a dry surface.

Moisture content in the substrate: ≤ 5% moisture.

Conditions during the application and curing: see "implementation conditions" further described in this technical data sheet.

Technically studied dilatation joints must be provided. These are resumed in the synthetic resin system to be installed.

The flatness of the surface must be consistent with the desired requirements.

If this is not the case, then correct measures have to be taken to fill in or smooth out the irregularities with products that are complementary to the substrate and to the synthetic resin system to be installed.

Shrink joints and passive cracks can be coated. This on condition that they are not used as dilatation joints or if they do not follow other movements of the structure and the substrate and that they are flattened with products that are complementary to the substrate and to the synthetic resin system to be installed.

REQUIRED TOOLS

- Mixer with spindle (min. 300 rpm)
- Rake
- Spiked roller type EPISOL® MC
- Masking tape

PREPARATION OF THE SUBSTRATE

Cracks, joints and other parts that show water leaks must first be made completely water-tight and leak-proof.

The surface must be mechanically pre-treated. This can be achieved by removing the dust by bullet- or sandblasting or by sanding the surface. These treatments ensure that an open texture surface is obtained, to remove the cement skin from concrete and old remnants of coatings and adhesives.

High pressure water jetting is possible but then the surface must dry sufficiently. Moisture content in the substrate: ≤ 5% moisture.

Before applying the primer:

Always apply the products on a clean surface, free from adhesion reducing materials such as dirt, oil, grease, old coatings or surface treatments, ...

The parts of the surfaces to be coated that do not meet the requirements as described above (compressive strength, tensile strength, parts that are not well connected, ...) must be treated or removed and repaired according to a correct method and with products that are complementary to the substrate and the synthetic resin system to be installed.

If you choose to work with a seamless plinth, use RESIPOX® PRIMER with RESIPOX® epoxy repair and plinth mortar.

Remove any loose parts by brushing properly and remove dust with an industrial vacuum cleaner.

Always apply EPISOL® MC on to a cured layer of EPISOL® PRIMER.

PREPARATION OF THE PRODUCT

Mixing

Stir the base (component A) homogeneously before use. Add the full amount of hardener (component B) and mix mechanically (300 rpm) until both components are homogeneous. Slowly add the filler component to the mixture. Mix until a homogeneous mass is obtained.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing containers and application material.

APPLICATION

Spread with a rake and deaerate after 20 minutes with a spiked roller type EPISOL® MC

FINISHING

After 24 to 48 hours a RESIPLAST NV epoxy or polyurethane topcoat can be applied.

APPLICATION CONDITIONS

Conditions during the application and curing of the products. The recommended processing temperature for substrate, environment, material and products is between +10 °C and +30 °C.

Relative humidity: Max. 85%

Dew point: The temperature of the substrate and of the not fully cured product must be at least 3 °C higher than the dew point. Avoid condensation on the surface from the moment that the preparations start until the complete curing of the products. Ensure adequate ventilation and a low relative humidity during curing.

CLEANING AND MAINTENANCE

Clean the used tools with SOLVENT MEK or ethyl acetate before the curing of EPISOL® MC. Cured product residues must be mechanically removed.

For cleaning and maintenance of the installed synthetic resin systems please refer to the information sheets:

Cleaning and maintenance of synthetic resin floor systems - INDUSTRY
Cleaning and maintenance of synthetic resin floor systems - PUBLIC AND PRIVATE BUILDINGS.

COMPLIMENTARY PRODUCTS

- Cleaning solvent for tools: SOLVENT MEK
- Pigment powder

ADVICE / FOCAL POINTS

When treating a new concrete surface with EPISOL® MC, it should be at least 28 days old.

TECHNICAL DATA

APPEARANCE - COMPOSITION

A-component	Modified epoxy resin
B-component	Polyamine hardener
C-component	Dry filler
Colours	On demand

REACTION TIMES

Processing time ± 45 minutes.

Walkable: after 24 hour

Full mechanical load: after 4 days

Full chemical resistance: after 7 days

Times measured at 20 °C; lower temperatures extend the curing time.

CONSUMPTION

2 kg/m² per mm layer thickness.


TECHNICAL DATA

Density	2 kg/dm ³
Surface	Smooth
Compressive strength	75 N/mm ²
Flexural strength	>15 N/mm ²
Bonding to concrete	2.6 N/mm ² (Exceeds concrete cohesion)
Heat resistance	60 °C
Layer thickness	5 - 9 mm
Min. Curing temperature	+10 °C
Application temperature	+15° - 30 °C
Curing	Shrink-free

CHEMICAL RESISTANCES

Good chemical resistance to alkalis, petroleum derivatives, acid, diluted organic acids, salts and solutions. For more information please contact RESIPLAST NV.

CE MARKING

	
KORAC NV, Gulkenrodestraat 3, 2160 Wommelgem, Belgium	
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EN 13813	
Synthetic resin floor/coating for indoor use in buildings	
Reaction to fire	C _{fl} -s2
Release of corrosive components	SR
Water permeability	NPD
Wear resistance (EN13892-4)	AR 0.5
Bonding strength (EN13892-8)	>B 2,0
Impact resistance (DIN EN ISO 6272)	>10 Nm
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD

REFERENCE DOCUMENTS



PACKAGING

EPISOL® MC	Comp A	Comp B	Comp C	Comp D
Set 33.5 kg	4.54 kg	1.9 kg	26.83 kg	0.23 kg
Set 67 kg	9.08 kg	3.8 kg	26.83 kg x 2	0.46 kg
Set 100.5 kg	13.62 kg	5.7 kg	26.83 kg x 3	0.69 kg

STORAGE AND SHELF LIFE

Store EPISOL® MC in a dry, well ventilated storage area between 5 and 35 °C. 24 months shelf life after production date, C component unlimited shelf life.

If in doubt, contact RESIPLAST NV and provide the batch number on the package. Do not let the product get in contact with ground water, surface water or sewage systems. Dispose of contaminated packaging and remnants according to legal regulations.

SAFETY PRECAUTIONS

Carefully read the safety instructions before using EPISOL® MC. Ensure there is sufficient ventilation, stay away from ignition sources and do not smoke. Avoid contact with skin. Eye irritation and/or sensitivity may occur during heavy vapour concentrations, inhalation and/or skin contact. Do not keep food products (food, beverages) in the same workspace. Always wear personal protective equipment according to local guidelines and regulations. Gloves and safety goggles are mandatory.

The above information is provided in good faith, but without any guarantees. The application, use and processing of the products are beyond our control and are, as such, the sole responsibility of the user/processor. In the event that KorAC NV is still held liable for damages, then the claim will still be limited to the value of the goods delivered. We always aim to deliver consistently high quality goods. All values on this technical sheet are average values that result from tests carried out under laboratory conditions (20 °C and 50% RH). Values that are measured on the construction site may show a slight deviation since the environmental conditions, the application, and the way of processing our products are beyond our control. Do not add any products other than those indicated on the technical documentation. This version replaces all previous versions. Version 2.0 Date: 10 January 2023 4:21 pm