

EPISOL® PU 43 OP MAT

POLYURETHANE TOP COAT



DESCRIPTION

Matt, wear-resistant polyurethane top layer with orange peel effect for epoxy, polyurethane and Polyac PMMA synthetic resin floors.

BENEFITS

- One component
- Transparent or extensive colour palette
- Good UV resistance
- Very high wear and scratch resistance
- High chemical resistance and liquid proof
- Low consumption
- Surface with light structure
- Low dirt build-up

FIELD OF APPLICATION

Compatible with several flooring systems made of epoxy or, polyurethane, or Polyac PMMA.

- Private buildings
- Public buildings
- Commercial centres
- Office buildings
- Hospitals
- Residential care centres
- Refectories
- Floors to be industrially coated with heavy load
- 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 preparations and the application of the product it is important to verify the different parameters to obtain good sustainable results.

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

Tensile strength of the substrate: min. 1,5 N/mm²

Moisture content in the substrate: ≤ 10% moisture for vapour open systems and ≤ 5% moisture for vapour closed systems.

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

Technically studied dilatation joints have to be provided. These are reintroduced in the resin to be placed. The flatness of the floor has to correspond with the desired requirements.

If this is not the case, correct measures need to be taken to fill up irregularities or to level with products that are complementary to the substrate and the system to be applied.

Joints and passive cracks or flaws can be overcoated. This is on the condition that they are not used as dilatation joints or if they do not follow different movements of the construction and the substrate and that they are levelled with complementary products to the substrate and to the resin to be applied.

REQUIRED TOOLS

- Mixer with spindle (min. 300 tr/min)
- Paint roller suitable for polyurethane based products.
- Masking tape
- Paint roller bin

PREPARATION OF THE SUBSTRATE

EPISOL® PU 43 OP MAT is placed on a hardened polyurethane or epoxy synthetic resin floor system. Polyurethane and epoxy synthetic resin floors or existing top layers older than 7 days need to be roughened.

POLYAC® polymethyl methacrylate synthetic resin floors must be allowed to cure for at least 2 hours, be lightly roughened and degreased with POLYAC® CLEANER before overlaying with EPISOL® PU 43 OP MAT.

Always apply the products on a clean surface, free of adhesion-reducing materials such as dirt, oil, grease, old coatings or surface treatments, etc. The parts of the surfaces to be covered that do not comply with the requirements as described above (Flatness, compressive strength, tensile strength, not corresponding parts, ...) should be treated or removed and repaired according to a correct method with products complementary to the substrate and the top layer yet to be applied.

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

PREPARATION OF THE PRODUCT

Mixing

Transparent:

Stir in EPISOL® PU 43 OP MAT homogeneously before use.

Coloured:

Stir in EPISOL® PU 43 OP MAT homogeneously. Then add 0.75 kg of pigment powder and mix mechanically (300 RPM) until both components are homogeneous before use.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing and application equipment.

APPLICATION

Apply EPISOL® PU 43 OP MAT with a lint-free roller using a paint bucket or paint roller tray.

Spread crosswise using firm pressure.

Finish after 15 minutes with a broad paint roller working crosswise.

The last paint strokes should always be in the same direction to avoid structural differences.

Replace the paint rollers after 45 minutes.

FINISHING

A second layer can be applied after 24 hours.

NOTE:

Finishing a synthetic resin floor with 1 layer of EPISOL® PU 43 OP MAT = Vapour permeable, with 2 layers EPISOL® PU 43 OP MAT = Vapour tight.

APPLICATION CONDITIONS

Conditions during application and curing of the products.

The recommended processing temperature for the substrate, environment, materials and products is between +10 °C and +25 °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 its dew point. Avoid condensation on the surface from the moment the preparations start until the complete curing of the products. Provide adequate ventilation and a low relative humidity during curing.

CLEANING AND MAINTENANCE

Clean the used tools with SOLVENT MEK before curing the EPISOL® PU 43 OP MAT. Cured product remains have to be removed mechanically.

To clean and maintain the installed synthetic resin system, please refer to the information leaflets:

Cleaning and maintenance of synthetic resin floor systems - INDUSTRY

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

COMPLIMENTARY PRODUCTS

If coloured top layer desired: Pigment Powder (can be ordered separately).

Cleaning solvent for tools: SOLVENT MEK.

ADVICE / FOCAL POINTS

Synthetic resin floors of unknown composition can only be overcoated after an adhesion test has been performed and if the results of this test are positive.

TECHNICAL DATA**APPEARANCE - COMPOSITION**

1 component	Modified polyurethane
Colour	Transparent. If coloured top layer is desired: Order pigment powder separately (RAL - see price list).

REACTION TIMES

Processing time after mixing: 45 minutes

Pedestrian traffic: After 6 hours.

Mechanically loaded: After 48 hours with sufficient ventilation.

Full chemical resistance: After 7 days (attention: water is also a chemical product).

Complete curing: after 7 days

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

CONSUMPTION

Transparent: 80-110 g/m² per layer.

Tinted: 80-110 g/m² per layer.


TECHNICAL DATA

Specific mass	1.1 kg/dm ³	EN ISO 2811-1
Viscosity	350 mPa.s	EN ISO 3219
Layer thickness	70 – 100 µm	EN ISO 2808
Adhesion	>2.0 N/mm ²	EN 1542
Hardness Shore D	80 – 90	EN ISO 868
Abrasion Resistance -Taber test CS10-1000tr-1kg	<10 mg	EN ISO 5470-1
Abrasion Resistance – BCA method	AR0,5	EN 13892-4
Abrasion Resistance - Ranking Performance	<1 g / < 1 cm ³	XP P11-101
Surface	Mat, orange peel	
Mixing ratio	Transparent: Ready for use For coloured top coat: 5 kg Transparent + 0.75 kg Pigment powder	
Curing	Non-shrinking	

CHEMICAL RESISTANCES

Good chemical resistance according to EN 13529 of min. 7 days at 20°C against group 1: petrol, group, 3: fuel oil, diesel and unused engine and transmission oils, group 4: hydrocarbons, group 10: inorganic acids up to 20% and salts with acid hydrolysis in aqueous solution (pH <6) except hydrofluoric acid and oxidising acids and their salts, group 5 alcohols, incl. methanol up to 48% and glycol ethers, group 9: acetic acid, group 10: sulphuric acid up to 20% and acid hydrolysing salts, group 11: inorganic alkalis and alkaline hydrolysing salts (pH>8), group 13: amines and their salts (in aqueous solution), and brake fluid. Limited chemical resistance to halogenated hydrocarbons of max 24h. For more information please contact RESIPLAST® NV.

CE MARKING

	
KORAC NV, Gulkenrodestraat 3, 2160 Wommelgem, Belgium	
12	
EN 13813	
Synthetic resin floor/coating for indoor use in buildings	
Release of corrosive substances	SR
Abrasion resistance	≤ AR0,5
Bond strength	≥ B1,5
Impact resistance	≥ IR10
Reaction to fire	E _{fl}

REFERENCE DOCUMENTS

FM 78518



EMS 716699

PACKAGING

EPISOL® PU 43 OP MAT	Component A
Set 5 kg transparent	5 kg

STORAGE AND SHELF LIFE

Store EPISOL® PU 43 OP MAT in the original, closed packaging and in a dry, well ventilated storage area between +5 and +35 °C.

Shelf life: 6 months.

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® PU 43 OP MAT. Products have a characteristic odour when being applied. 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 2024 10:25 am