

EPISOL® PU 43 OP EL

PASTE AS ADDITIVE TO MAKE THE POLYURETHANE TOP LAYER EPISOL® PU 43 OP MAT CONDUCTIVE



DESCRIPTION

EPISOL® PU 43 OP EL is a paste as an additive to make the EPISOL® PU 43 OP MAT top layer conductive. After application and curing, a matt, wear-resistant, with orange peel effect, electroconductive polyurethane top layer for conductive epoxy and polyurethane synthetic resin floors is obtained.

BENEFITS

- Electrostatic conductive
- Extensive colour palette - only dark colours
- Very high UV resistance
- High wear and scratch resistance
- Low consumption
- Surface with light structure
- Low dirt build-up

FIELD OF APPLICATION

As a top layer on conductive epoxy or polyurethane synthetic resin floor systems for electrically conductive and electrostatic applications.

- Rooms subject to explosion hazard - ATEX
- Rooms with sensitive electronic equipment
- Computer rooms
- Electronic industry
- Pharmaceutical industry
- Food and animal nutrition
- Battery charging stations
- Automotive, space and aviation industry
- Storage location for solvents
- 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 with EPISOL® PU 43 OP EL is placed on a hardened conductive polyurethane or epoxy synthetic resin floor system. Conductive polyurethane and epoxy synthetic resin floors or existing top layers older than 7 days need to be roughened.

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.

Resin floors of unknown composition can only be coated once an adhesion test has been carried out and the results of this test are positive.

PREPARATION OF THE PRODUCT

Mixing

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

Then add the complete amount of EPISOL® PU 43 OP EL paste and mix mechanically again (300 RPM) until a homogeneous mixture is obtained.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing and application equipment.

APPLICATION

Apply the mixture 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 cast floor with 1 layer of EPISOL® PU 43 OP MAT with EPISOL® PU 43 OP EL = Vapour permeable, with 2 layers of EPISOL® PU 43 OP MAT with EPISOL® PU 43 OP EL = 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 and EPISOL® PU 43 OP EL. 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

EPISOL® PU 43 OP MAT (to be ordered separately)

If coloured top coat is desired: Powder pigment (to be ordered separately) Attention, only dark colours are possible.

Cleaning solvent for tools: SOLVENT MEK

ADVICE / FOCAL POINTS

Conductive resin floors of unknown composition can only be coated once an adhesion test has been carried out and the results of this test are positive.

TECHNICAL DATA

APPEARANCE - COMPOSITION

1-component	Coloured paste
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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

Approximately: Min. 120 g/m² to max. 150 120 g/m² per layer.


TECHNICAL DATA

Specific mass	1.1 kg/dm ³
Viscosity	500 mPa.s
Layer thickness	± 100 µm
Uses Maximum	120 g/m ² 150 g/m ²
Adhesion	>2.0 N/mm ²
Surface	Matte, orange peel
Electrical resistance	10 ⁴ – 10 ⁶ Ohm
Hardness Shore D	80 – 90
Curing	Non-shrinking

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	NPD
Release of corrosive substances	SR
Water permeability	NPD
Abrasion resistance (Taber)	<10 mg CS10-1000 tr - 1 kg
Adhesion strength	B 2,0
Impact resistance (DIN EN ISO 6272)	>10 Nm
Soundproofing	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD

REFERENCE DOCUMENTS



FM 78518



EMS 716699



PACKAGING

EPISOL® PU 43 OP EL	1 Component
	2.9 kg

STORAGE AND SHELF LIFE

Store EPISOL® PU 43 OP EL in the closed original packaging, in a dry, well ventilated storage area between +5 and +35 °C.
Shelf life: 6 months after production date.

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 EL. 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: 13 January 2023 12:21 pm