POLYAC® TC

PMMA FLOOR AND WALL COATING AND TOP COAT FOR POLYAC® SYSTEMS

DESCRIPTION

POLYAC® TC is a coloured, tough-elastic, UV-resistant, liquid-tight floor and wall coating and top layer for POLYAC® floor or membrane systems based on methyl methacrylate (MMA).
POLYAC® TC is available in 6 standard colours: RAL 3002 - 5017 - 6024 - 7035 - 7037 - 9003

BENEFITS

- Limited layer thickness
- Applicable both vertically and horizontally
- Fast curing
- Applicable at low temperature
- Tough-elastic
- High mechanical strength
- High abrasion resistance
- Easy cleaning
- Weather resistant

FIELD OF APPLICATION

POLYAC® TC is the recommended floor and wall coating and top layer for broadcasted POLYAC® floor and membrane systems with frequent traffic.

APPLICATION

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

PRELIMINARY ANALYSES

POLYAC® TC top layer is only placed on another POLYAC® product. Before starting the substrate preparation and applying the POLYAC® products, it is important to test various parameters in order to achieve a good and sustainable result.
Cracks, joints and other parts that show water leaks must first be made completely water-tight and leak-proof. 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.
The maximum permissible relative moisture content of the surface or substrate depends on the chosen primer.
Conditions during the application and curing: see "Application 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. Should this not be the case, correct measures must be taken to fill in or smooth out the unevenness 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)
- Rubber squeegee
- Brush or pain roller suitable for synthetic resin-based products
- Masking tape

PREPARATION OF THE SUBSTRATE

POLYAC® TC must be applied on a dry surface.
Always apply POLYAC® TC on a clean substrate, free from adhesion-reducing materials such as grime, oil, fat, old coatings or surface treatment products, etc.
Cleaning of the POLYAC® surface, to be smoothly overcoated, can be done with POLYAC® CLEANER and leads to improved intermediate adhesion of the layers. Consult the separately available technical product sheet.
Remove loose-laying parts by properly brushing these surfaces and remove dust using an industrial vacuum cleaner. In the case of overlaying Polyac® systems broadcast with aggregate, the loose aggregate must be completely removed after broadcasting.

POLYAC® TC as wall and floor coating:
When using POLYAC® TC as a wall and floor coating, the substrate should always be treated with a suitable POLYAC® primer. The choice of primer depends on the type of substrate and relative moisture content of the substrate.
• Concrete substrates
The concrete substrate needs to be in place at least 28 days and have the following properties:
- Minimum compressive strength of the substrate: min. 25 N/mm²
- Minimum tensile strength of the substrate: min. 1.5 N/mm²

Both POLYAC® 12 and POLYAC® 14 are suitable up to a residual moisture content of the substrate of no more than 5%. For humid, mineral substrates with a moisture content up to 10%, POLYAC® 18 may be used.
• Metal substrates
POLYAC® 15 may be used for steel substrates. For other metal substrates contact Resiplast NV. for advice.
Before applying the primer:
The surface must be sufficiently dry before the primer is applied. Avoid standing water in the pores. Concrete and metal substrate must be pretreated mechanically.
Consult the technical fact sheets of the POLYAC® primers for the methods to be adopted and the application of these primers.

POLYAC® TC as top layer of a POLYAC® system:
POLYAC® TC as top layer of a POLYAC® system is only placed on top of other already cured, whether or broadcasted, POLYAC® products. Request system advice from our technical department for possible combinations.

RESIPLAST
KorAC NV - part of Koramic Chemicals.
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PREPARATION OF THE PRODUCT

Mix POLYAC® TC well before use in order to obtain a homogeneous mass. Paraffin can separate during storage.
Dispense an amount of resin that can be processed within 15 minutes.
POLYAC® CATALYST peroxide hardener must be ordered separately.

Add POLYAC® CATALYST to POLYAC® TC		
Temp.	In%	POLYAC® CATALYST per 1 kg POLYAC® TC
0 °C	5%	50 g
5 °C	4%	40 g
10 °C	3%	30 g
20 °C	2%	20 g
30 °C	1%	10 g

Mix until the powder of the hardener is completely dissolved.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing containers and application material.

APPLICATION

POLYAC® TC is evenly distributed with a short-haired paint roller or brush. Apply sufficient POLYAC® TC to create a tight coating or top layer. Processing time of POLYAC® TC is 10 to 15 minutes , depending on the addition of POLYAC® CATALYST. Do not disturb the paraffin layer that occurs during curing. After one hour (at 20 °C) a second layer of POLYAC® TC can be applied if necessary.

APPLICATION CONDITIONS

Conditions during the application and curing of the products.
The recommended processing temperature for substrate, environment, material and products is between +0 °C and +35 °C. For temperatures lower than +0 °C please contact RESIPLAST NV.
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 POLYAC® TC. Cured products residues must be removed mechanically.
For the cleaning and maintenance of 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

- Cleaning solvent for tools: SOLVENT MEK or ethyl acetate
- POLYAC® CATALYST

TECHNICAL DATA

APPEARANCE - COMPOSITION

See standard colours under "Description".

REACTION TIMES

Processing time after mixing: 10 to 15 min. (Depending on the addition of POLYAC® CATALYST.)
Walkable: after 30 min
Recoatable (possible 2nd layer): 30 min
Fully mechanical load: after 2 hours
Full chemical resistance: after 2 hours
Times measured at 20 °C; lower temperatures extend the curing time.

CONSUMPTION

0.5 – 1.0 kg/m² (depending on system).

TECHNICAL DATA

Odour	Methyl methacrylate
Hardener: POLYAC® CATALYST	BPO 50 %, depending on the temperature from 1 % to 5 weight % (see section "Preparation of the product)
Viscosity	300 - 450 mPa.s (EN ISO 3219 at 20 °C, Brookfield, spindle III/100 rpm)
Density	1.05 g/cm³ ±0.05 (EN ISO 2811-1 at 20 °C)
Flash point	10 °C (MMA, DIN 51 755)
Hardening test (Test volume)	300 g POLYAC® TC With 6 g harderpoeder
Exothermic peak	130 - 145 °C
POLYAC® TC + 2 % POLYAC® CATALYST	
Density:	0.98 kg/dm³
Hardness Shore-D	50
Abrasion resistance (Taber)	<45 mg (CS10 - 500tr - 1 kg)

CHEMICAL RESISTANCES

Polymerized POLYAC® resins have good chemical resistance to alkalis, petroleum derivatives, acid, salts and maintenance products. For more information please contact RESIPLAST NV.

CE MARKING

Values determined for 1 kg/m² without broadcasting

CE

KORAC NV, Gulkenrodestraat 3, 2160 Wommelgem, Belgium	
22	
EN 13813	
Synthetic resin floor/coating for indoor use in buildings	
Release of corrosive substances	SR
Abrasion resistance	≤ AR0,5
Bond strength	≥ B2,0
Impact resistance	≥ IR2,5
Reaction to fire	E_{fl}

REFERENCE DOCUMENTS

Information sheet "POLYAC® ODOUR".

FM 78518 EMS 716699

PACKAGING

POLYAC® T	20 kg	Metal pail

To be ordered separately:

POLYAC® CATALYST	80 g	Box with 66 or 96 pieces in plastic bags
	100 g	Box with 100 pieces in plastic bags
	250 g	Box with 50 pieces in plastic bags
	5 kg	Plastic pail
	25 kg	Box

STORAGE AND SHELF LIFE

Store POLYAC® products in a dry, well-ventilated storage area between +5 and +35 °C.
Shelf life: 6 months after production date.
In case of doubt, please contact RESIPLAST NV and state the batch number on the packaging. Do not discharge into groundwater, surface water of sewers. Dispose of contaminated packaging and residues in accordance with the applicable legal requirements.

SAFETY PRECAUTIONS

Carefully read the safety data sheets before using POLYAC® products. A characteristic odour arises during processing. Ensure adequate ventilation, keep away from sources of ignition and do not smoke. Avoid skin contact. Eye irritation and/or hypersensitivity may occur with severe vapour concentration, inhalation and/or skin contact. Do not store food, drinks in the same workspace. Always wear personal safety equipment in accordance with the applicable local guidelines and legislation. Gloves and safety glasses are mandatory.

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