

# POLYAC® PF

VERY FAST CURING, PRE-FILLED PUMA RESIN FOR WEARING COURSES WITH HIGH DURABILITY



## DESCRIPTION

Very fast curing, pre-filled, tough-elastic resin based on PUMA (polyurethane methacrylate), for wearing courses with thicknesses from 2 to 6 mm. The hardener is pre-dosed in single packs and is added at the job site.

## BENEFITS

- Suitable for traffic after 2 hours, even at temperatures around freezing point
- Tough-elastic properties
- Withstands high dynamic traffic impacts and compression
- May be applied with different colours and aggregates
- Excellent wear resistance - slip resistance depends on the aggregates used
- Quick and easy to apply
- Minimal disruption to traffic and reduced possession times
- Pre-dosed components

## FIELD OF APPLICATION

POLYAC® PF is used as a levelling or wearing course or as a decorative course for indoor and outdoor applications.

Examples of applications include:

### Wearing course with high reduction of slide or slip risk:

- On the public road: Cycle paths and advisory cycle paths, traffic islands, separation zones, speed ramps, junctions, etc.
- In buildings: Signalling lanes
- In and around buildings: Ramps, parking areas, stairs, balconies and terraces, galleries, driveways
- Stadiums and grandstands

### Decorative course in public and indoor spaces:

On concrete floors, communal areas, footpaths, etc.

## APPLICATION

**Please note:** The following is a typical application description. In case of different job site parameters, please contact our technical department.

### PRELIMINARY ANALYSES

Before starting with the substrate preparations and applying the products, it is important to check various parameters so as to ensure a lasting quality result.

Conditions during application and curing: see "Execution conditions" as detailed in this technical fact sheet.

The surface levelness needs to be compliant with the specified requirements. Where this is not the case, corrective steps must be taken to fill surface imperfections or level the floor using products that are compatible with the substrate and the synthetic resin system to be applied.

Contraction joints and passive cracks or tears may be coated, provided they are not used as expansion joints or where they do not follow other movements of the construction and the substrate and provided they have been levelled out using products that are compatible with the substrate and the synthetic resin system to be applied.

For specific advice, please contact Resiplast NV.

The adhesion of POLYAC® PF on substrates made up of road asphalt must be established in advance and by performing a test, see also elsewhere "Substrate preparation".

### REQUIRED TOOLS

- Mixer with spiral stirring rod (min. 300-800 rpm)
- Spatula, squeegee or toothed comb
- Masking tape

### PREPARATION OF THE SUBSTRATE

Whether or not you need to use a primer before applying POLYAC® PF depends on the type of substrate.

#### Road asphalt:

In general no primer needs to be applied. The minimum tensile or adhesion strength must be 0.8 N/mm<sup>2</sup>. If the adhesion between Polyac PF and the substrate is less than 0.8 N/mm<sup>2</sup>, use the POLYAC® 14 primer (residual moisture content of the substrate max. 5%).

#### 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/mm<sup>2</sup>
- Minimum tensile strength of the substrate: min. 1.5 N/mm<sup>2</sup>

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:

In the case of substrates made up of road asphalt, the substrate may be prepared using a high-pressure water jet. 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. Always apply POLYAC® PF on a clean substrate, free from adhesion-reducing materials such as grime, oil, fat, old coatings or surface treatment products, etc.

Treat or remove and repair the sections of the surface areas that are to be overlaid and which do not comply with the requirements outlined above (compressive strength, tensile strength, sections that are poorly connected, etc.), in accordance with the proper method and using products that are complementary to the substrate and the synthetic resin system to be applied. Remove loose-laying parts by properly brushing these surfaces and remove dust using an industrial vacuum cleaner.

## PREPARATION OF THE PRODUCT

POLYAC® PF must be mixed well before use. Paraffin may separate while stored. Measure out an amount of resin than can be processed within a 15-minute time span. Where the customer wants a colour that is different from the standard colour, add at least 1% micronised pigment powder (out of the total set weight) and mix again from scratch until you obtain a homogeneous mass.

Then add the number of small pre-dosed bags of 80 g POLYAC® CATALYST hardener as specified in the table below and depending on the temperature. POLYAC® CATALYST needs to be ordered separately.

Temperature	Small POLYAC® CATALYST bags of 80 g per set of POLYAC® PF
0°C	5
5°C	4
10°C	3
20°C	2
30°C	1

Mix until the powder is fully dissolved.

## PREPARATION OF THE EQUIPMENT

Always use clean processing tools / equipment.

## APPLICATION

Spread the mixture using a spatula, squeegee or toothed comb. A non-slip surface is achieved by broadcasting the wet resin to saturation point (a generous amount) with the desired type of dry aggregate (3 to 8 kg/m<sup>2</sup>). When applied in 2 layers, the first layer is often not broadcast generously, but only to the point that the surface is fully covered with aggregate.

The processing time of POLYAC® PF is 10 to 15 minutes.

## APPLICATION CONDITIONS

Conditions during the application and curing of the products.

The recommended processing temperature for the substrate, the ambient environment, equipment/tools and products is anywhere between +5°C and +35°C.

For temperatures below +5°C, please contact Resiplast NV.

Relative air humidity: Max. 85%

Dew point: The temperature of the substrate and the product that has not fully cured yet must be at least 3°C higher than the dew point. Avoid condensation on the surface from the time preparations starts until the products are fully cured. Make sure the space is adequately ventilated and there is low relative air humidity during curing.

## CLEANING AND MAINTENANCE

Clean the used tools using POLYAC® CLEANER or SOLVENT MEK before POLYAC® PF cures. Cured product residue must be removed mechanically.

For cleaning and maintaining the synthetic resin system applied, please see the information brochures:

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

## COMPLEMENTARY PRODUCTS

- Cleaning solvent for tools: SOLVENT MEK, POLYAC® CLEANER OR ethyl acetate
- POLYAC® CATALYST
- Pigment powder (optional)
- Aggregates (optional)

## ADVICE / FOCAL POINTS

Please make sure you consult all technical and safety sheets of the products concerned at all times.

## TECHNICAL DATA

### APPEARANCE - COMPOSITION

Non-pigmented: beige-brown.

### REACTION TIMES

Processing time after mixing: 10 to 15 min.

Trafficable: after 1 hour

Recoatable after 1 hour

Full mechanical stress: after 2 hours.

Full chemical resistance: after 2 hours.

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

### CONSUMPTION

+/- 1.7-1.8 kg POLYAC® PF resin per m<sup>2</sup> per 1 mm of course thickness on a level non-absorbent substrate.


## TECHNICAL DATA

Odour	Methyl methacrylate
Viscosity	3000 – 6000 mPa.s (20 °C Brookfield, spindle III/200 rpm)
Relative density	1.7 - 1.8 g/cm <sup>3</sup> ±0.2 (20°C)
Mineral substances content	65 - 75%
Flashpoint	10°C (MMA, DIN 51 755)
POLYAC® PF after curing	
Relative density	1.7 - 1.8 kg/dm <sup>3</sup>
Hardness Shore-D	75 - 85

## CHEMICAL RESISTANCES

Contact Resiplast NV. for advice

## CE MARKING

	
KORAC NV, Gulkenrodestraat 3, 2160 Wommelgem, Belgium	
23	
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	≥ IR4
Reaction to fire	E <sub>fl</sub>

## REFERENCE DOCUMENTS

Information sheet "POLYAC® SENT"



## PACKAGING

POLYAC® PF	24 kg	Metal pail
------------	-------	------------

To be ordered separately:

POLYAC® CATALYST	80 g	Plastic bag
------------------	------	-------------

Pigment powder	1 kg	Plastic jerrycan
	5 kg	Plastic pail
	25 kg	Bag

## STORAGE AND SHELF LIFE

Store the POLYAC® products in a dry, well ventilated storage space at a temperature between +5 and +35°C.

Shelf life: 12 months after the production date.

When in doubt, contact RESIPLAST NV and state the batch number printed on the packaging. Do not discharge into the groundwater, surface water or sewer pipes. Dispose of contaminated packaging and residue in accordance with applicable legal requirements.

## SAFETY PRECAUTIONS

Please read the safety sheets carefully before using POLYAC® products. During processing, a characteristic odour is given off. Make sure the space is adequately ventilated, keep away from ignition sources and do not smoke. Avoid skin contact. Eye irritation and/or hypersensitivity of the eyes may occur in case of strong vapour concentrations, inhalation and/or skin contact. Do not keep comestibles (food, drinks) in the same workspace. Always wear personal protective equipment in accordance with applicable local guidelines and laws. Gloves and safety goggles are mandatory.

The information above is provided in good faith, albeit without any guarantees. The application, use and processing of the products is beyond our control and, as such, is the sole responsibility of the user/processor. In the event KorAC NV is held liable for damage sustained, in all cases any such claims will be limited to the value of the goods supplied. We are committed to supplying consistently high quality goods. All values in this technical fact sheet are average values which are the result of tests carried out under laboratory conditions (20°C and 50% RH). Values that are measured on the job site may derogate slightly, as the ambient conditions, the application and the manner of processing of our products are beyond our control. Do not add any products other than those listed in the technical documentation. This version replaces all previous versions. Version 2.0 Date: 18 July 2023 9:34 am