

POLYAC® 100

HIGHLY FLEXIBLE, CASTABLE, PMMA BASED JOINT FILLER



DESCRIPTION

POLYAC® 100 is a PMMA (polymethyl methacrylate) based, permanently highly flexible, castable joint filler.

ADVANTAGES

POLYAC® 100 has excellent adhesion and can be applied at temperatures below the freezing point thanks to its fast reaction and good reactivity.

- High reactivity
- Large joint width and layer thickness in one pass
- Fast curing
- Applicable at low temperature
- Good flow
- Can be applied inside and outside
- Can be coloured

FIELD OF APPLICATION

Permanently highly flexible, castable joint filler.

In layer thickness of 2 cm for a joint width of 4 cm and more this flexible mass can be walked on after 1 hour. For larger layer thickness or joint width POLYAC® 100 must be poured in several layers. Minimum joint width is 5 mm.

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

POLYAC® 100 must be applied a dry surface. Moisture content in the substrate: ≤ 5 % moisture.

Exception: ≤ 10 % moisture when used in combination with POLYAC® 18 primer.

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

REQUIRED TOOLS

Mixer with spindle (min. 300 rpm)

Mixing and pouring containers.

Masking tape.

PREPARATION OF THE SUBSTRATE

Concrete should be at least 28 days old, free of curing compound, cement milk, grease and oil. Prepare old concrete and mineral substrates by shot blasting, sand blasting or etching.

To ensure optimum movement of the joint, place a backing rod of closed cell foam so that the resin adheres to both walls and not to the bottom of the joint.

PREPARATION OF THE PRODUCT

Mix POLYAC® 100 well before use. Paraffin can separate during storage. Dispense an amount of resin that can be processed within 15 minutes. POLYAC® 100 can be coloured. Mix 5 % pigment powder in the POLYAC® 100 resin and mix until a homogeneous mixture is obtained. Add 1 to 5 % of hardening powder POLYAC® CATALYST. POLYAC® CATALYST must be ordered separately.

| Temp: | Quantity POLYAC® CATALYST per 1 kg POLYAC® 100 |
|-------|--|
| 0 °C | 50 g |
| 5 °C | 40 g |
| 10 °C | 30 g |
| 20 °C | 20 g |
| 30 °C | 10 g |

Mix until the powder is completely dissolved.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing containers and application material.

APPLICATION

Pour POLYAC® 100 in the joint before the temperature of the mixture increases. Maximum pouring height is 2 cm. For larger layer thickness, POLYAC® 100 is poured in several times. Wait until the previous layer has sufficiently cooled down before pouring on the next layer.

FINISHING

POLYAC® 100 had a slightly sticky surface, the sticking can be neutralized by sprinkling with quartz grain.

APPLICATION CONDITIONS

Conditions during the application and curing of the products.

The recommended processing temperature for substrate, environment, material and products is between +5 °C and +35 °C. For temperatures lower than +5 °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® 100. Cured products residues must be removed mechanically.

COMPLIMENTARY PRODUCTS

- Cleaning solvent for tools: SOLVENT MEK or ethyl acetate
- POLYAC® CATALYST
- Pigment powder
- Backing rod in closed cells foam.

TECHNICAL DATA

APPEARANCE - COMPOSITION

Viscous liquid, cloudy.

REACTION TIMES

Processing time after mixing: 10 to 15 min.

Walkable: after 1 hour

Recoatable: after 1 hour

Fully mechanical load: after 2 hours

Full chemical resistance: after 2 hours

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

CONSUMPTION

0,1 litre per linear meter for a joint section of 1 cm².

1 kg = 1 litre = 1 dm³


TECHNICAL DATA

| | |
|---|---|
| Odour | Methyl methacrylate |
| Initiator: POLYAC® CATALYST | BPO 50 %, depending on the temperature from 1 % to 5 weight % calculated on the proportion of POLYAC® 100 |
| | 10 to 15 min. (20 °C) |
| Viscosity | 4,5 +/- 1 Pa.s (20 °C Brookfield, spindle V/50 rpm) |
| Density | 1,1 g/cm ³ ±0,3 (20 °C) |
| Flash point | 10 °C (MMA, DIN 51 755) |
| Hardening test (test volume) | 300 g POLYAC® 100 with 6 g curing powder |
| POLYAC® 100 + 2 % POLYAC® CATALYST | |
| Density | 0,98 kg/dm ³ |
| Colour | Yellow brown transparent |
| Hardness Shore-A | 17 |
| Elongation at break | >300 % at 20 °C >200 % at -10 °C |

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 TABLE

| | |
|---|---------------------------|
|  | |
| Resiplast NV, Gulkenrodestraat 3, B-2160 Wommelgem | |
| 12 | |
| EN 13813 | |
| Bekleding op basis van kunstharzen voor gebruik in gebouwen. | |
| Reaction to fire | E _{fl} |
| Release of corrosive substances | SR |
| Water permeability | NPD |
| Wear resistance (Taber) | <30 mg CS10-1000tr - 1 kg |

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 Resiplast N.V. 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: 7 May 2021 8:45 am

| | |
|-------------------------------------|--------|
| Adhesive pull strength | B 1,5 |
| Impact resistance (DIN EN ISO 6272) | >10 Nm |
| Sound insulation | NPD |
| Sound absorption | NPD |
| Thermal insulation | NPD |
| Resistance to chemicals | NPD |

REFERENCE DOCUMENTS

Information sheet "POLYAC® ODOUR".



PACKAGING

| | | |
|-------------|--------|------------|
| POLYAC® 100 | 5 kg | Metal pail |
| | 20 kg | Metal pail |
| | 200 kg | Drum |

To be ordered separately:

| | | |
|------------------|--------|--------------|
| POLYAC® CATALYST | 0,5 kg | Plastic pail |
| | 5 kg | Plastic pail |
| | 25 kg | Box |

| | | |
|----------------|-------|------------------|
| Pigment powder | 1 kg | Plastic canister |
| | 5 kg | Plastic bucket |
| | 25 kg | Bag |

STORAGE AND SHELF LIFE

Store POLYAC® products in a dry, well-ventilated storage area between +5 and +35 °C. Shelf life: 12 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 (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.