Wisacoll® PEPP 3000

Constructive two-component special adhesive for low-energy surfaces such as polyethylene (PE), polypropylene (PP), Teflon®, EPDM, etc.

Application areas

Wisacoll PEPP 3000 is a two-part structural adhesive designed for use on substrates that are extremely difficult to bond

- was specially formulated for bonding (without pre-treatment) low-energy plastics like polyethylene (PE), polypropylene (PP), PTFE (Teflon®), EPDM (ethylene-propylene-diene rubber)
- but materials that are easier to bond are also suitable like e.g.

Plastics	PVC, ABS, GRP, PA, PMMA, PBT, PET, PC, PS, but also PE, PP, PTFE and EPDM
Composites	CFK, GRP, FPM, SMCs, gelcoat, polyurethane, polyester and epoxy
Metals	aluminium, cast iron, steel, stainless steel, construction steel, copper, most painted and powder coated surfaces, hot-dip galvanised and galvanised metals
Other materials	wood, glass, and many absorbent substrates treated with Wi-Primer V-01 or Wi-Primer V-07

- ideal for automotive supply industry, solar engineering, electrical engineering, precision engineering, optics, machinery and apparatus engineering, for the assembly of parts and for a wide range of customised industrial and commercial applications

Product benefits

- provides good adhesion where other adhesives may fail
- strong grip
- excellent impact, peel and shear strength
- good resistance to vibration
- good resistance against freshwater, saltwater and many chemicals
- no risk of corrosion
- sandable and drillable when cured
- can be levelled over with many adhesives and sealants
- paintable / recoatable and lacquerable

Base

2C reaction adhesive based on hybrid acrylate

Restrictions

Not recommended for polysulfones (PSU) and silicones.
In addition, we recommend that you carry out sufficient tests of your own to determine the suitability of this product for your particular requirements. This applies in particular to soft surfaces, paintwork and unknown rubber compounds.

Cleaning agents

Wisaclean R 216 for cleaning non-absorbent adhesive surfaces and fresh product residues. The cured product can normally only be removed mechanically. To wash your hands, please use water and soap.

Processing

The bonding surfaces must be sound, dry and free of dust and grease.
Pre-coat absorbent and porous substrates with Wi-Pimer V-07.
Use Wi-Primer V-01 as a solvent-free alternative.

Clean the adhesive surface with Wisaclean R 216.
Check treated and non-absorbent surfaces with an adhesion test.
Depending on the surface of the material, it will be necessary to determine whether the adhesion can be improved by sanding or priming the surface.

Open the container. Carefully squeeze out both components. Especially when using already opened cartridges, make sure that no hardened material enters the mixing tube. Only then screw on the static mixing tube.

To ensure optimum bonding, the two components must be thoroughly mixed. Apply the adhesive. Join parts to be glued together as quickly as possible. Press or at least fix parts until sufficient functional strength is achieved.

Remarks

- The first approx. 2 g of adhesive mixture per static mixer are not yet optimally mixed and must therefore not be used for bonding (safety shot).
- If work is interrupted, ensure that the adhesive does not remain in the static mixer for too long (see point Max. processing time in the static mixing tube).
- When working continuously, several double syringes can be emptied with one static mixer. If work is interrupted for longer than the maximum processing time in the static mixer tube, the static mixer must be replaced with a new one.
- Alternatively, the adhesive can also be mixed externally (without a static mixer) using a spatula. Make sure that no air is mixed into the mass.
- The product is a strong exothermic reaction, ie mixing a high volume of adhesive may result in heat and smoke generation.
- Dwell time, time to functional strength and through-hardening are largely dependent on temperature and application quantity. The processor must add appropriate safety margins to the specified guide values.

Bonding of metals

- In most cases, the adhesion will be improved by sanding smooth surfaces with abrasive paper (e.g. P 120).
- Galvanised sheet metal must always be protected against permanent exposure to standing moisture (white rust formation). When bonding, it must be ensured that any moisture that occurs does not reach the bonding surface!

Density (mixture) ca. 0.99 g/ml (± 0.03 g/ml)

Mixing ratio parts by volume (A:B = 10:1)

Viscosity (mixture) low viscous-pasty (ca. 25’000 - 50’000 mPa*s); the viscosity during processing at 15 °C is about twice as high as at +25 °C

Topfzeit ca. 6 min (depending on preparation quantity)

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Processing time
ca. 2.5 - 3 min (at +20 °C)

Max. processing time in static mixer
<4 min. at +20 °C; the processing time is halved at approx. +30 °C and approx. doubled at +10 °C
Within this time, the adhesive in the static mixer MUST be completely renewed to maintain perfect mixing. If the interruption of work is longer than this time, the static mixer must be replaced!

1st functional strength
from ca. 3 - 4 h (depending on application and temperature)

Curing time
50 % final strength after ca. 2 h - 4 h, at +20 °C
100 % final strength after ca. 8 h - 24 h

Gap filling capacity
ca. 0.2 - 3.0 mm

Recommended adhesive joint thickness
ca. 0.2 - 0.3 mm; optimum thickness of the adhesive layer is guaranteed by the integrated glass beads. However, it is possible to bridge larger gaps in the range of 1 mm - 3 mm.

Breaking elongation
max. 5.3 % acc. to ASTM D638 / DIN ISO 6892

Tensile strength
ca. 15 - 22 N/mm² acc. to ASTM D 1001

Tensile shear strength

Material	N/mm²	Material	N/mm²
HDPE	ca. 7.0 (M)	PMMA	ca. 6.5 (M)
UHMW PE	ca. 5.0 (M)	GRP	ca. 17.1 (K)
LDPE	ca. 2.5 (M)		
PP	ca. 7.5 (M)	cold rolled steel	ca. 17.2 (K)
PTFE	ca. 1.5 (A)	stainless steel	ca. 15.9 (K)
PVC	ca. 14.1 (M)	aluminium	ca. 15.7 (K)
ABS	ca. 10.5 (M)	glass	ca. 4.5 (M)

M = Material failure
K = Cohesive fracture (fracture in the adhesive)
A = Adhesive fracture (loss of adhesion)

Recoatability
Can be sanded and painted over after complete cross-linking with most paint systems.
The bonded workpieces should not be painted over until the adhesive has fully cured. Self-testing is necessary.

Film properties
tough-but-flexible

Temperature resistance
from -55 °C until +80 °C (after complete cross-linking)

Processing temperature
preferably at temperatures between +20 °C until +25 °C

Flash point
ca. 122 °C

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Substrates

Polyethylene (PE), polypropylene (PP), PTFE (Teflon®), EPDM (ethylene-propylene-diene rubber), PVC, ABS, GRP, PA, PMMA, PBT, PET, PC or PS, CFK, GRP, FPM, SMCs, gelcoat, polyurethane, polyester and epoxy, aluminium, cast iron, steel, stainless steel, construction steel, most painted and powder coated surfaces, wood, glass and many absorbent substrates treated with Wi-Primer V-01 or Wi-Primer V-07.
For other surfaces, own tests are required.

Further information

You can find more information about this product (link to the product on our homepage, safety data sheet, certificates, special enquiries etc.) under the adjacent ISOPIN QR code.

Colour

Binder (A-Compponent)	white
Hardeners (B-Compponent)	creamy
Mixture	**creamy**

Item no.

Wisacoll PEPP 3000.50

Delivery form / Content

cartouches à 2 composants à ca. 50 ml / 48 g, CTN 10 pieces
Larger containers on request.

Shelf life

In closed original packaging, protected from direct sunlight and stored in a cool, dry place, ideally between +1 °C and +5 °C, the official shelf life is 12 months from date of production. The storage temperature must not fall below +0 °C. Higher temperatures reduce the shelf life. Over storage time, viscosity increases and reactivity decreases.

Accessories

SM.25-50.SU	Static mixer for 2C syringes bayonet lock

Safety and disposal: Familiarise yourself with the valid Safety Data Sheets (SDS) for the products used. All applicable safety regulations and disposal instructions must be observed.