EPOJOINT

CHEMICAL-RESISTANT, TWO-COMPONENT EPOXY POLYEURETHANE RESIN FOR SEALING JOINTS IN CONCRETE FLOORING

DRACO

FLOORING

LINE

FLEXIBLE, RESIN-BASED SEALANTS FOR JOINTS IN CONCRETE FLOORING

EPOJOINT

EPOJOINT is a special semi-rigid epoxy polyurethane resin for elastic sealing of contraction, expansion and construction joints in concrete industrial flooring. **EPOJOINT** is a sealant with high mechanical strength and superior resistance to chemical attack, combined with good flexibility that allows in service movement up to 20%. **EPOJOINT** has a two-component formula based on epoxy polyurethane resins, that is free of solvents and isocyanates. When fresh, this last generation product has a "soft paste" consistency that makes it easy to apply using a pneumatic extrusion gun with compressed air.

BENEFITS

The special chemical formula of EPOJOINT provides this product with unique and highly professional characteristics.

The product's specific features are:

- ✓ Flexible and elastic-plastic properties with high capacity for in service movement: **EPOJOINT** is characterised by an elastic-plastic consistency when hardened that does not alter over time. This guarantees the ability of the sealant to compensate for changes in joint size due to the load and temperature variations to which the surface is exposed.
- ✓ **High mechanical resistance to abrasion and heavy traffic: EPOJOINT** is characterised by hardness (SHORE A HARDNESS 65) superior to normal flexible sealants for concrete floors. This confers a greater ability to transfer loads over the walls of the joint and a high protection of the edges of the joint from traffic, even of trolleys with small wheels.
- ✓ **No shrinkage:** the solvent-free formula of **EPOJOINT** guarantees the absence of shrinkage when both fresh and hardened.
- ✓ **Strong bonding to the joint walls: EPOJOINT** exhibits strong adhesion to concrete and all cementitious substrates. This ensures efficient and waterproof sealing of joints over time even where there is movement in service of the floor plates.
- ✓ **Good resistance to aggressive chemicals:** once **EPOJOINT** has hardened completely it becomes waterproof, resistant to heat and chemical attack from lubricating oils, detergents and common aggressive agents.
- ✓ **Easy to use:** the "soft paste" consistency and the elastic-plastic nature of the resin ensure that **EPOJOINT** is a product that is easy to apply for precise and rapid sealing. This increases productivity even for interventions over large areas (e.g. airport aprons).

WHERE TO USE

EPOJOINT is a semi-rigid sealant with high mechanical strength and resistant to traffic. It is ideal for flexible sealing of control, expansion and construction joints in concrete industrial flooring even in environments subject to high traffic and stresses such as:

- ✓ Contraction and construction joints of concrete industrial floors of warehouses exposed to intensive traffic.
- ✓ Joints in concrete flooring for heavy industries in general.
- ✓ Joints in concrete yards, port areas, freight and logistics areas with high traffic.
- ✓ Joints for airport runways, aircraft parking and maneuvering areas.

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APPLICATION PROCEDURE

PREPARATION OF THE JOINT FOR SEALING

Remove all traces of dirt, oils, form release agents and cement debris after cutting. Remove any loose or flaking parts and clean thoroughly with a metal brush and then remove any remaining dust with a vacuum-cleaner of adequate power.

To prevent dirtying the concrete adjacent to the joint apply adhesive paper along the edges then remove after sealing.

CREATING THE SUPPORT IN THE JOINT

Form the supporting base in the joint by positioning the DRAFIL closed-cell foam cord. The sealing must be correctly sized as indicated in the table on the right. If the joint sides are not completely solid and free of porosity, we recommend treating the sides with the solvent-free product PRIMER E for consolidation and promoting bonding, 3-4 hours before sealing.

WIDTH OF THE JOINT	DEPTH OF THE SEALANT
up to 10 mm	equal to the width
from 11 to 20 mm	10 mm
over 20 mm	equal to half the width

MIX PREPARATION

EPOJOINT is supplied in two pre-dosed components:

A- base formula

B - hardener

Before blending component A with component B, the products must be mixed thoroughly in their own containers. The mixing must be done carefully with a low speed drill with paddle for 3-4 minutes to obtain a smooth, uniform mix.

Do not partially use the contents of the containers to avoid errors in the mixing ratios that could impede or prevent complete hardening.

Like all epoxy products, **EPOJOINT** develops heat during hardening (exothermic reaction), so the importance of the ambient temperature and the amount of resin and hardener mixed is of fundamental importance.

APPLYING THE SEALANT

Before applying the sealant, make sure the joint is completely dry.

Apply **EPOJOINT** with a compressed-air extrusion gun for sealants in a quantity slightly higher than that required for filling. Wait until the product completely fills the joint and spread the product with a trowel up to the level of the taped edges. The leveling layer should not be excessively thick - 0.5 mm will be sufficient.

When the product is thickened but not completely hardened, after a few hours, remove the taping.

CREATING A CONTRACTION JOINT WITH SUPERIOR STRENGTH

Cutting and cleaning of joint.

Positioning the **DRAFIL** cord to form a support.

Application of the polyurethane primer, **PRIMER E**.

Application of the flexible polyurethane sealant, **EPOJOINT**.

Removal of excess sealant.

Removal of protective tape.

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PRECAUTIONS

- The contraction joints should be cut to at least one fifth of the thickness of the concrete forming the flooring.
- Wear protective gloves and goggles both at work and during cleaning tools.
- Use DILUENTE ECO to clean tools.

PRECAUTIONS IN HOT CLIMATES

- In summer, it is advisable to mix small quantities in containers that allow a maximum surface area and to work quickly.

PRECAUTIONS IN COLD CLIMATES

- In winter, on the other hand, the resin hardens more slowly and you can therefore mix in containers with a smaller exposed surface area to exploit the bulk effect.

PACKAGING AND STORAGE

EPOJOINT is packaged pails:

6 kg pail + 1 kg pail = (A+B) **7 kg**

12 kg pail + 2 kg pail= (A+B) **14 kg**

If kept in its original packaging and properly stored under cover in a dry place the product maintains its characteristics for a year.

PRODUCT CHARACTERISTICS

COLOUR	Grey
BROOKFIELD VISCOSITY (+20°C)	Comp. A: 40000 mPa·s (RV7 10 g/min) Comp. B: 148000 mPa·s (RV4 100g/min)
SPECIFIC GRAVITY (+20°C)	Comp. A: 1.33 kg/l Comp. B: 1.53 kg/l
CUSTOMS CLASS	3909 50 00
SHELF LIFE	12 months

APPLICATION DATA +20°C - 65% RH

APPEARANCE OF THE MIX	Soft, semi-fluid paste
COLOUR	light grey
BROOKFIELD VISCOSITY OF THE MIX (20°C)	42000 MPa·s (RV7 ; 70g/min)
APPLICATION TEMPERATURE	from +10°C to +35°C
YIELD (sample section approx. 1x1 cm)	150 g/m
SPECIFIC GRAVITY OF THE MIX	1.36 kg/dm^3

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PRODUCT PERFORMANCE

CHARACTERISTICS	PRODUCT PERFORMANCE
PULL-OFF STRENGTH (MPa)	1,4 MPa
MEDIUM MODULUS OF ELASTICITY (MPa)	0,5 MPa
ELONGATION AT BREAKING POINT (%)	70 %
SHORE A HARDNESS	65
GLASS-LIQUID TRANSITION TEMPERATURE	- 20° C
ELONGATION IN SERVICE AT 20°C (after 10 days)	20 %
RESISTANCE TO ABRASION	excellent
RESISTANCE TO HUMIDITY	excellent
RESISTANCE TO AGEING	excellent
RESISTANCE TO ACID AND ALKALIS	good
RESISTANCE TO LUBRICATING OILS BASED ON ALKYLATES, PARAFFINS, KEROSENE AND AVIATION GASOLINE	excellent
RESISTANCE TO THE CONTACT WITH HYDROCARBONS	suitable as per UNI EN 14187-4 directive
TEMPERATURE OF USE	from - 20° C to + 90° C

TECHNICAL SPECIFICATIONS

EPOJOINT is applied on joints where a two-component flexible epoxy polyurethane resin with high mechanical strength is required to withstand and counteract the stress from loads over joints and to offer adequate protection of edges even in areas subject to heavy traffic, as per details provided by the manufacturer DRACO Italiana Spa. All instructions and precautions followed must comply with the recommendations given by the manufacturer: **DRACO Italiana SpA**. Technical assistance available from qualified staff on request.