PRODUCT

P. A. 103
Epoxy Paste Adhesive

DESCRIPTION

P.A. 103 is a two-component, 100% solids, buttery, thixotropic, multi-purpose epoxy paste adhesive with an excellent adhesion to most known substrate surfaces in the construction industry such as concrete, stone, marble, metal, carbon lamellas, glass and wood.
P.A. 103 combines high strength with resiliency, it will not shrink or become brittle and has been specially modified to be used also in presence of moisture.
P.A. 103 waterproofs the surfaces and is resistant to corrosion and abrasion.

USES

- Adhesive for the application of Carbon Fiber Lamellas (Carbonforce®).
- Bonding precast concrete elements, steel-to-concrete, wood-to-concrete.
- Patching horizontal, vertical or overhead spalls in concrete.
- Embedding bolts, re-bars, dowels.
- Setting injection tees and sealing cracks.
- Filling honeycomb areas and voids
- Mixed with 1 - 2 parts of quartz sand to form non-sag mortars.

SPECIFICATION

- Form: Two packs to be mixed immediately before using
- Colour: Concrete grey
- Mixing ratio: 70 parts A to 30 part B by weight.
- Density: 1,5 ± 0,05 Kg/dm^3
- Solid content: 100%

- Pot Life (1 kg mass):
23°C 25 minutes
30°C 15 minutes

- Full cure: 7 days

- Mechanical characteristics

Characteristics	Method	Unit	Value
Tensile strength	ISO 527-1-2 (93)	MPa	60
Elastic modulus	ISO 527-1-2 (93)	MPa	3000
Elongation to break	ISO 527-1-2 (93)	%	2,9
Compressive strength	ASTM D 695	MPa	60
Adhesion to concrete		MPa	3**

** Concrete failure

Products and systems for the protection and repair of concrete structures. Structural bonding

Shear resistance	UNI-EN 12188		N/mm2	>12
Shear strength in compression	UNI-EN 12188	50°C	N/mm2	>40
		60°C	N/mm2	>50
		70°C	N/mm2	>50
Tensile strength	UNI-EN 12188		N/mm2	>50
Linear shrinkage	UNI-EN 12617-1	30°C	%	0,046
Compressive strength	UNI-EN 12190		N/mm2	>50
Durability	UNI-EN 13733		specification exceeded	
Adhesion	UNI-EN 12188		specification exceeded	
Water sensibility			in accordance	
Elastic tensile modulus	ISO-527-1-2(93)		N/mm2	>3000
Elongation to break	ISO-527-1-2(93)		%	>2,9
Tensile breaking load	ISO-527-1-2(93)		N/mm2	>50

- Storage life: 24 months (minimum) if stored in the original, tightly sealed packs.

- Packing: 1 Kg. and 5 Kg. Units

CHEMICAL RESISTANCE

P.A. 103 has good chemical resistance to:

- Fresh, salt and demineralized waters.
- Anti-freeze liquids, oils, greases, gasolines, etc.
- Alkalis.
- Acids of medium concentration.

HOW TO USE

SURFACE PREPARATION:

Surfaces must be sound and free from dirt, grease, old paint residues, loose materials, rust or other contaminants.
The recommended methods of cleaning are:

- Grit-blasting.
- Mechanical brushing

MIXING
Check uniformity of each component and stir parts "A" and "B" separately.
Mix only the quantity of material that can be used before expiration of pot-life.
For standard quantities, pour all of part "B" into can containing part "A". Mix thoroughly using a mechanical low speed mixer with a paint mixing paddle until material attains uniform consistency and color. Carefully scrape the sides and bottom of the containers while mixing. Thorough mixing will take 3 to 5 minutes.
For smaller batches check uniformity of each component, stir parts "A" and "B" separately and thoroughly, measure the two components as specified on the label into a clean container and proceed as above. A perfect uniform mixing must be obtained.
When P.A.103 is used to prepare epoxy mortar always mix Parts “A” and “B” together before adding the quartz sand (highly recommended whenever available). Quartz sand should always be dry and bagged. Using graded sands with low voids will require less binder for a given volume of mortar than the use of ungraded sands.
Typical density of a mortar made by 1 part by weight of P.A. 103 and 1 part by weight of

dry quartz sand is 1.85 Kg/dm3.

APPLICATION

Apply P.A. 103 by spatula, trowel or fibre brush, using rubber gloves.
Matching surfaces of elements to be bonded must be carefully spreaded in advance with P.A 103.

CLEAN UP

Clean all tools and equipment immediately after use with Solvent OMNIA or toluene, or acetone.

HANDLING AND TOXICITY

"A" and "B" Component For Industrial Use Only!
Skin contact should be avoided by wearing impervious gloves (rubber or disposable polyethylene) and by using suitable goggles for eyes; barrier creams such as Kerodex K7 may also assist in affording additional protection. Any accidentally contaminated skin areas should be cleansed immediately with soap and water and/or a suitable resin removal cream. For eyes, clean with plenty of water and get medical attention immediately.
The use of solvents for skin cleansing should be avoided

NOTE

P.A. 103 is also available as P.A. 103 S.G. (Summer Grade) offering same properties with adjusted pot-life for use in hot climate.

All information and direction contained in this technical data sheet are given in good faith and are based on the best known practical test.
SINIT, when having no control over transport, storage, handling, use and application of its product, will disclaim all responsibilities for any unsatisfactory results obtained.

All tests have been carried out at 23°C.

Revised: February 2022.

These data supersede all previously published data.

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