MAXISTIK® 550

Low viscosity epoxy for injections

DESCRIPTION

Maxistik® 550 is a two-component, solvent-free, low viscosity, structural epoxy, especially formulated for injections in non-active cracks up to 6 mm wide in concrete and for the preparation of epoxy mortar.

USES

- Injections in non-active concrete cracks up to 6 mm wide, damp or dry.
- For the preparation of epoxy mortar for repairs or coatings on industrial floors or general construction, on interior applications.
- As sealer or primer for concrete areas that will be repaired with epoxy materials.
- Anchoring on horizontal surfaces.

FEATURES

- Exceptional structural adhesion.
- Develops high early-age structural strength.
- High compressive and flexural strength.
- Insensitive to moisture.
- Good resistance to a variety of acids, alkalis, oils and solvents.
- Low viscosity.
- Excellent abrasion resistance.
- Rapid cure.
- High modulus of elasticity.
- Rigid. Minimum shrinkage.
- Complies with ASTM C 881 Types I and IV, Grade 1, Classes B and C, and AASHTO M235-91.

PACKAGING

	Component A	Component B
11,3 L (3 gal)	7,6 L (2 gal)	3,7 L (1 gal)
Color	Blue	Yellow
	Translucid green after mixing	

COVERAGE

Use	Materials	Coverage
As epoxy for injection	Coverage must be estimated on site, depending on crack dimensions	
As epoxy mortar	11,3 liters (3 gal) of Maxistik® 550 45 liters (72 kg) of silica sand 20/40	45 liters of mixture
As epoxy coating	11,3 liters (3 gal) of Maxistik® 550 40 kg of silica sand Nº 70	29 liters of mixture
As sealer or primer	11,3 liters (3 gal) of Maxistik® 550	22 m^2 to 42 m^2
As anchoring grout or mortar	11,3 liters (3 gal) of Maxistik® 550 17 liters (27 kg) of silica sand 20/40	22,5 liters of mixture

INSTALLATION

SURFACE PREPARATION

Surfaces must be structurally sound, clean, and free of dirt, dust, oil, grease, wax, paint, efflorescence, curing compounds, rust, mill scaling or any contaminant. They may be damp, but free of standing water. Bolts and rods to be anchored and metals must also be clean and free of dust, oil, grease, rust, mill scale and contaminants. Sandblast or other approved mechanical methods are recommended. Sandblast steel to white metal finish. Perforations may be washed with water or blown with compressed air.

MIXING

Pre-mix each component separately; place in a clean container 2 parts by volume of resin A with 1 part of hardener B. Stir and blend thoroughly, and scrape bottom and sides, to make sure that the mixture is homogeneous, usually for 2 to 3 minutes. Only prepare the amount of epoxy that can be used during the working time of the product (20 to 30 min in the mixing container). Do not thin. Solvents will prevent proper cure.

APPLICATION

ON INJECTIONS: Seal the cracks and place the nozzles with AnchorMax® 590. Start the injection process at the nozzle that is lower, until the epoxy starts to come out of the nozzle above that one. Seal the first one and continue the injection through the nozzle out of which the epoxy came out. Continue upwards. Use only qualified equipment for epoxy mixing and injecting.

TO PREPARE EPOXY MORTAR: Epoxy resin may be mixed with up to 4 or 5 parts per volume of silica sand N° 20/30. Apply the mortar while mixture is still fresh (15 minutes at 24 °C). Finish with a metal trowel. For a smoother finish, constantly clean the trowel with a cloth dampened with thinner. Use it on interior applications or where it will not be subject to significant temperature changes.

AS SEALER OR PRIMER: Pour the mix over the surface immediately after mixing and spread it with a hard bristle brush. When used as primer, Maxistik® 550 must be tacky at the moment of application of the epoxy mortar.

FOR ANCHORING: Use alone or mix with 1,5 parts per volume of silica sand N° 20/30 that is clean and free of salts.

AS LEVELING GROUT: Mix with 1,5 parts per volume of silica sand N° 20/30 that is clean and free of salts.

CLEAN-UP

Clean all tools with thinner after use.

TECHNICAL DATA

Complies with ASTM C 881, Types I and IV, Grade 1, Classes B and C. Conforms to AASHTO M235-91.

Information		
Elongation at break	3% – 4%	
Pot-life at 24 °C	25 – 30 minutes	
Dry-to-the-touch at 24 °C	5½ – 6 hours	
Linear coefficient of shrinkage cured ASTM D 2566	0,003 mm max.	
Viscosity ASTM D 2393	300 – 500 CPS	
Bond strength, hardened concrete to hardened concrete or steel ASTM C 882, dry cure	2 days	21 MPa
Bond strength, hardened concrete to hardened concrete or steel ASTM C 882, wet cure	14 days	16 MPa
Water absorption ASTM D 570	24 hours	0,5% max
VOC	0,0 g/L	
Compressive strength at 24 °C ASTM D 695	16 hours	21 MPa
	24 hours	34 MPa
	3 days	69 MPa
	7 days	79 MPa
Tensile strength ASTM D638	14 days	52 MPa
Elongation at break ASTM D 638	3,5% - 5%	
Modulus of elasticity ASTM D638	2482 MPa	
Flexural strength ASTM D 790	14 days	83 MPa
Tangent modulus of elasticity ASTM D 790	2551 MPa	
Compressive modulus	2413 MPa	
Temperature of deflection by heat (7 days) ASTM D 648	50 °C	
Application temperature range	+10 °C to +40 °C	
Service temperature, wet	-15 °C to +60 ºC	
Service temperature, dry	-15 ºC to +80 °C	

Information of the epoxy mortar 1:5		
Compressive strength at 24 °C ASTM D 695	16 hours	34 MPa
	24 hours	38 MPa
	3 days	47 MPa
	7 days	69 MPa
Compressive modulus	5654 MPa	

ENVIRONMENTAL CONTRIBUTION

Information of the contribution to the environment	
Diversion from landfills	INTACO packaging materials are made of paper and/or plastic that may be diverted from landfills.
Low emitting materials	VOC content is 0,0 g/L (minus water). Complies with VOC levels of South Coast Air Quality Management District. Tests under ASTM D6886-03 method.

RECOMMENDATIONS

Use only aggregates that are clean and completely dry. The minimum age of concrete must be 28 days, prior to application of the product. Test for moisture vapor transmission prior to application. Material is a vapor barrier after cure. Hardened epoxy over metallic tools may be removed by blowtorch. The desirable temperature range during the application is from 16 °C to 24 °C. At higher temperatures, the working time of the product is reduced, as well as the set times. The opposite occurs at low temperatures. Provide movement joints on coatings over large areas.

LIMITATIONS

Do not weld metal in contact with Maxistik® 550, as high temperatures damage the original characteristics of the epoxy. As epoxy mortar, use in interior applications or where it will not be subject to drastic temperature changes and do not apply it in a thickness larger than 13 mm. Moisture passing through the substrate by pressure during application and curing of epoxy can cause bond failure. Not for sealing cracks under negative hydrostatic pressure. Do not inject it inside cracks wider than 6 mm without technical authorization.

SHELF LIFE

Storage time is 24 months in its original closed package. Keep in a cool, dry place.

PRECAUTIONS

Wear adequate protection. Do not take internally. Avoid breathing dust. Eliminate or control dust while handling or placing this product. May burn or irritate the eyes or skin.

First aid: In case of contact, flush eyes or skin thoroughly for 15 minutes with clean water and get prompt medical attention. In case of ingestion, drink one or two glasses of water to dilute and get immediate medical attention.

WARRANTY

INTACO warrants that this product is free of defects and will perform in the way described in the technical sheet, only if the product is used strictly according to applicable specifications and instructions provided by INTACO for its use. INTACO will replace or, at INTACO's option, refund the purchase price of any product proven to be defective due to quality of ingredients or to the manufacturing process. INTACO does not take responsibility for indirect, consequential, incidental or special damages. Coverage and dosage data are susceptible to variations due to particular conditions in each job site; it is the user's responsibility to test and verify them at the site. This product data sheet may be changed without INTACO's notification.

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