

ADCOPOXY 613

Low viscosity crack injection epoxy liquid

ADCO
Construction-
and Mining
Chemicals

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technical data sheet

DESCRIPTION

ADCOpoxy 613 is a low viscosity, solvent-free, twin-pack epoxy compound. It is supplied unfilled, exhibits excellent flow characteristics and renders superior adhesion to concrete substrates.

ADCOpoxy 613 has been designed for application also onto damp concrete surfaces (maximum moisture content 8%). Specific fluid characteristics of the product allow for penetration into very fine crack structures.

USES

ADCOpoxy 613 is used to carry out structural repairs to concrete members such as silos, water retaining structures, columns, beams, floors and bridge decks. The product is installed either by pressure injection or gravity feed. The tensile strength of cured ADCOpoxy 613 is greater than 11 MPa and renders the product suitable for the structural repair of high-strength and load-bearing concrete members.

INSTALLATION

Pressure Crack Injection : Clean out the cracks with clean oil-free compressed air or by industrial vacuum. Drill holes into the crack at 100 – 250 mm centres (depending on the crack line and –depth). Install, by using ADCOpoxy 611 Dry-to-Dry Adhesive, the purpose-made injection pipes (available from ADCO Construction and Mining Chemicals), taking care not to damage the thread or stain same with epoxy. For fine cracks requiring injection, special injection nipples with flange attachments are available for fixing over the crack, rather than into the crack.

Where the crack has progressed right through the member and requires injection from both sides, holes must be drilled off-set to one another. Upon completion of the installation of the crack injection pipes, clean out dust and debris from drilling and close up the crack between pipes, using ADCOpoxy 611. Allow 24 hours curing before the injection process. (In the event of low-ambient temperature, the curing time may have to be extended.)

Add the total contents, of activator and base of ADCOpoxy 613 to one another and thoroughly mix for 3 – 4 minutes, preferably using a slow-speed mechanical drill. Fill the special injection gun with the epoxy and commence injection from the lowest point. Continue injecting at a steady rate until the product exits at the next injection pipe, thereby displacing the air. This process is continued until complete filling is achieved. The system of pipes and nipples is left in place for the epoxy to cure and removed thereafter. For critical structural integrities, it is advised to drill core samples into the repaired crack to confirm successful installation.

Gravity Feed Horizontal Crack Filling : Clean out the cracks with clean oil-free compressed air or by industrial vacuum. Using a silicone-bead or window putty, form a surface reservoir adjacent to the prepared crack and allow the material to set.

Add the total contents of activator and base of ADCOpoxy 612 to one another and thoroughly mix for 3 – 4 minutes, preferably using a slow-speed mechanical drill. Without delay, overfill the crack and use the reservoir to maintain a small pressure on the injection liquid and continue until the crack is completely filled. Allow the product to cure and thereafter remove by mechanical means to reinstate the surface. Important : The open time, setting and curing characteristics of ADCOpoxy 613 are influenced by temperature, hence ambient conditions have to be taken into account when planning crack injection projects. Thorough cleaning of injection equipment is required and is done by using ADCOchem 291. Remember, cured ADCOpoxy 613 is only removed by mechanical means.

PROPERTIES

Mixing Ratio	2 by 1 volume, mix as supplied
Colour	Amber
Density	1.04
Pot Life	20 – 30 minutes @ 25°C
Application Temp	5 - 35°C
Service Temp	Max 70°C Wet (continuous) / Max 120°C Dry (intermittent)
Full Cure	7 days
Compressive Strength	>60 MPa (full cure)
Chemical Resistance	Dilute acids and alkalis
Pack Size	2 litres, 5 litres
Cleaning of uncured material	ADCOchem 291

SAFETY

Contact with the skin should be avoided by wearing gloves and protective clothing. In case of eye contact wash well with warm water and obtain medical advice. The cured material is not toxic.

Remember : Keep away from children, handle responsibly and consider the environment.

UPDATE

May 2017.

This supercedes all previous documentation.