

Nitofill LV

Low viscosity, dual cartridge, epoxy crack-injection system

USES

Nitofill LV is designed for injecting cracks in concrete and masonry where there is a need to consolidate a structure or exclude water and air from contact with the reinforcement.

Nitofill LV is a low viscosity, epoxy injection grouting system suitable for cracks down to 0.2 mm at the substrate surface and cracks tapering internally down to 0.01 mm.

The Nitofill LV system is ideal for small scale repairs on site and is also suitable for insitu or precast concrete elements.

ADVANTAGES

- High strength, excellent bond to concrete and masonry
- Low viscosity allows cost effective and efficient repair
- System includes everything necessary to complete the crack injection
- Convenient to use, disposable cartridge pack contains both base and hardener
- Safe and clean to use

DESCRIPTION

Nitofill LV crack injection system incorporates a two part epoxy base and hardener contained in a dual cartridge pack.

The Nitofill LV cartridge pack accessory items are available separately: cartridge gun, static mixer nozzle hoses, injection flanges, flange adaptors and flange removing tool.

TECHNICAL SUPPORT

Parchem offers a comprehensive range of high performance, high quality construction products. In addition, Parchem offers a technical support service to specifiers, end-users and contractors, as well as on site technical support.

DESIGN CRITERIA

Nitofill LV is suitable for injecting cracks in concrete and masonry down to 0.2 mm at the substrate surface and internal cracks tapering down to 0.01 mm.

The system should not be used for cracks where movement is expected to continue.

PROPERTIES

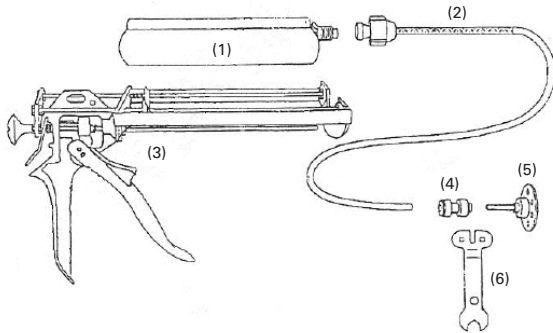
The following results are typical for the hardened Nitofill LV epoxy resin.

Usable life at	10°C:	40 minutes
	20°C:	20 minutes
	30°C:	10 minutes
Viscosity at	10°C:	250-450 cps
	20°C:	150-200 cps
	30°C:	50-100 cps
Compressive strength (BS 6319):	1 day	57 MPa
	3 days	66 MPa
	7 days	83 MPa
Tensile strength (BS 6319):		>25 MPa
Flexural strength (BS 6319):		>50 MPa

CHEMICAL RESISTANCE

The cured Nitofill LV epoxy is resistant to oil, grease, fats, most chemicals, mild acids and alkalis, fresh and sea water. Consult Parchem Technical Department when exposure to solvents or concentrated chemicals is anticipated.

NITOFILL LV (CRACK INJECTION SYSTEM)



- (1) Nitofill LV 450ml pack
- (2) Nitofill LV static mixer / hose
- (3) Nitofill cartridge gun
- (4) Nitofill LV adaptor
- (5) Nitofill LV flange
- (6) Nitofill flange tool

SPECIFICATION CLAUSE

LOW VISCOSITY CRACK INJECTION GROUTING SYSTEM

The injection grouting material shall be a low-viscosity epoxy resin, with high bond strength to wet or dry concrete, high compressive tensile and flexural strengths, and offering chemical and weathering resistance.

Specially formulated for injection of cracks down to 0.2 mm at the surface, tapering down to 0.1 mm internally.

Use in conjunction with a surface sealing two part epoxy resin and hardener material for setting and sealing around injection flanges and surface of cracks.

INSTRUCTIONS FOR USE

SURFACE PREPARATION

All contact surfaces must be free from oil, grease, free standing water or any loosely adherent material. All dust must be removed.

CRACK SURFACE SEAL

Nitomortar AP is used to bond the injection flanges to the substrate and to seal the face of the crack (see current Nitomortar AP Technical Data Sheet for additional application / mixing instructions).

APPLICATION OF THE SURFACE SEAL

Immediately after mixing, apply a small amount of the Nitomortar AP product to the underside of each flange, making sure that the valve will not be blocked and place the flange centrally over the crack. Flanges should be placed between 200 mm and 500 mm apart dependent on

crack size, along the length of the crack. Additional surface seal should be applied around each flange edge and to the remainder of the crack between the flanges to ensure a resin tight seal to the substrate.

Where cracks can be sealed on one side only, flanges should be placed at centres which are 80% of the depth to which the resin is required to penetrate.

Application of the Nitofill LV injection resin can commence as soon as the Nitomortar AP has fully hardened.

INJECTION OF THE NITOFILL LV EPOXY RESIN

The Nitofill LV static mixer/hose should be screwed onto the cartridge. The cartridge is then placed into the gun and the outlet end of the hose pushed onto the lowest flange using the adaptor.

The contents of the cartridge are then injected until the resin flows from an adjacent flange, or until firm and sustained hand pressure on the gun trigger signifies that no further resin will be accepted. Then pull the barb on the flange away from the base. Remove the liner strip out of the barb on the flange. Hold the base of the flange while removing the liner slip from the barb. This will ensure the flange is not accidentally removed from the substrate. The flange should be in the closed position when the liner slip is pulled totally away from the base. This will prevent material flowing out from the crack. The pressure should be released and the hose disconnected from the flange using the adaptor and tool.

The injection hose can then be refixed to an adjacent flange, and more Nitofill LV resin injected. Repeat the process until the entire length of crack has been injected.

In the case of cracks which go all the way through a wall or slab, the resin should be injected through alternate flanges on both sides where access is possible. In the case of slabs, injection from the underside takes precedence to top injection.

MAKING GOOD

After the Nitofill LV injection resin has set, remove the flanges. These can be knocked off with a hammer. Make good any holes or voids with Nitomortar AP.

The existing surface sealant can then be removed using a sharp broad-chisel or by grinding until the original substrate profile is restored.

CLEANING

All tools and equipment should be cleaned immediately after use with Solvent 10.

LIMITATIONS

The Nitofill LV resin injection system should not be used for cracks where movement is expected to continue. Other measures should be taken to accommodate such movement, ie cutting and forming a movement joint.

Contact your local Parchem sales office for further information.

ESTIMATING

Nitofill LV:	450 ml cartridge (15 per carton)
Nitomortar AP:	3 litre pack
Solvent 10:	20 litre pail

NITOFILL LV SYSTEM ACCESSORY ITEMS

Nitofill LV Gun:	single item
Nitofill LV Flange:	50 per bag
Nitofill LV Adaptor:	10 per bag
Nitofill LV Static mixer/hose:	10 per bag
Nitofill LV Flange tool:	10 per bag

STORAGE

Nitofill LV, Nitomortar AP and Solvent 10 have a shelf life of 12 months if kept in dry conditions at 20°C.

ADDITIONAL INFORMATION

Parchem provides a wide range of complementary products which include:

- concrete repair – cementitious and epoxy
- grouts and anchors – cementitious and epoxy
- waterproofing membranes – liquid applied, cementitious and bituminous sheet membranes
- waterstops – pvc and swellable
- joint sealants – building, civil and chemical resistant
- industrial flooring systems – cementitious and epoxy
- architectural coatings
- filler boards – swellable cork, bituminous and backing rod
- ancillary products

For further information on any of the above, please consult with your local Parchem sales office.

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

PRODUCT DISCLAIMER

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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