

Nitoseal PY350 is a two-component hybrid polyurea, elastomeric rapid cure joint sealant

Uses

For sealing low movement and saw cut joints in concrete floors where high Shore A hardness is required including retail, warehousing, bunds and other industrial applications.

Suited to resist heavy hard wheeled traffic.

Can be used to repair spalled joints and other random crack repair.

Advantages

- Very fast curing - quick return to service time
- High Shore A hardness
- Tough and abrasion resistant - seals and help protect joint edges
- Chemical resistant
- Weather resistant
- Aliphatic formulation - UV resistant and colour stable for internal and external applications
- Chemical cure - independent of ambient humidity and joint size
- Easy to gun out and tool to finish

Description

Nitoseal PY350 is a two part, dual cartridge, gun applied, hybrid polyurea sealant which cures very rapidly to form a durable, hard-wearing seal to internal and external low movement joints.

Design criteria

Nitoseal PY350 should only be used in very low movement construction / contraction joints where the anticipated movement is less than 5% of the joint width.

Joints should be sealed with width:depth as follows;

6 to 12mm wide : depth equal to width (1:1)

13 to 24mm wide : 12mm depth

Over 25mm wide : depth is half the width (2:1)

Joints should only be sealed after the initial shrinkage has occurred in new concrete - typically after 90 days.

Nitoseal PY350 is not designed for sealing expansion joints.

Properties

Form:	Non slump thixotropic paste
Colour:	Grey
VOC content:	<1g / litre (ASTM D2369)
Mix ratio:	1:1 by weight or volume
Density (cured):	1.05 g/cm ³
Movement accommodation factor:	+5% / -5% (10% total)
Hardness:	80 (+/-3) Shore A (ASTM D2240)
Tensile strength:	17 MPa (ASTM D412)
Physical or chemical change:	Chemical cure (non-acidic)
100% Modulus:	3.1 MPa (ASTM D412)
300% Modulus:	5.3 MPa (ASTM D412)
Elongation at break:	780% (ASTM D2240)
Angle tear strength:	54 kN/m (Die C) (ASTM D624)
DIN resiliency:	41% (ASTM D1817)
Application temperature:	Minimum 5°C (joint must be dry and frost free)
Service temperature:	-20°C to +80°C
Tooling time:	4 minutes @ 25°C
Shave time:	30 to 50 minutes 25°C
Tack free time:	75 minutes @ 25°C
Light traffic:	90 minutes @ 25°C
Full cure:	2 hours @ 25°C
Chemical resistance - excellent; little or no effect:	Ammonium Hydroxide, Boric Acid, Calcium Chloride, Calcium Hydroxide, Castor Oil, Glycerine (Glycerol), Greases, Hexane, Mineral Oil, Petroleum, Tartaric Acid, Vegetable Oil
Chemical resistance - good; minor to moderate effect:	Ammonia, Animal Fats, Benzoic Acid, Butyl Alcohol, Chlorine, Citric Acid, Cyclohexane, Ethylene Glycol, Ferric Chloride, Hydrochloric Acid 20%, Hydrofluoric Acid, Hydrogen Peroxide, Isopropyl Alcohol, Sodium Dichromate, Sodium Hydroxide 45%, Sodium Nitrate, Transformer Oil, Trisodium Phosphate, Urea, Zinc Chloride
Chemical resistance - fair; moderate to severe effect:	Acetic Acid, Ammonium Acetate, Chromic Acid, Ethyl Alcohol, Ethyl Bromide, Ethyl Chloride, Hydrogen Sulphide, Phosphoric Acid (Conc.), Turpentine, Xylene

Fosroc® Nitoseal® PY350

Chemical resistance - poor; not recommended:	Acetone, Benzene, Butyl Acetate, Ethyl Acetate, Methyl Alcohol, Methyl Ethyl Ketone, Methyl Chloride, Nitric Acid, Skydrol Oil, Sodium Hypochlorite 5%, Steam, Toluene, Trichloroethylene
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Note: These ratings must only be used as guidance as results may vary depending on ambient temperature, preparation procedure, application, dry time and contact time. A more comprehensive list of chemical resistance is available on the Fosroc website. In addition, it is recommended that comprehensive immersion tests be carried out for critical applications.

Application instructions

Preparation

Joint faces must be sound and completely dry, clean and frost free. Oil, grease, curing compounds, form release agents, and all surface contaminants must be completely removed by grinding joint faces.

In all joints a bond breaker must be used to prevent sealant contact with the back of the joint, to allow optimum sealant performance.

Deep joints should incorporate a backing strip such as Expandafoam or Hydrocell to support the sealant while also acting as a bond breaker.

Priming

Priming of well prepared concrete joints is normally not required.

For optimum results, particularly with moving joints, priming with Fosroc Primer 13 should be considered.

Primer 13 must be thoroughly mixed before applying and the primer must be touch dry before applying sealant.

Application

Fit the 600ml dual cartridges of Nitoseal PY350 into Fosroc Polyurea WCS Manual Gun (FC007087-UNIT) and fit the Nitoseal PY350 Static Mixer nozzle (FC920126-UNIT).

For dispensing 40kg kits, a Graco E10 is a suitable pump using an appropriate gun fitted with the Nitoseal PY350 Static Mixer nozzle. Refer to your local Graco distributor for specific details.

Gun out a small quantity of mixed product to waste to ensure the product is being sufficiently mixed in the static mixer. Then immediately begin gunning the mixed Nitoseal PY350 into the prepared joint. Ensure sealant is forced well against all joint surfaces to achieve good surface wetting and thus optimum adhesion. Guide nozzle along the joint gradually, applying even pressure to the trigger.

Slightly over-fill the joint so the excess can be trimmed off after 30 to 50 minutes @ 25°C to leave a flat even finish.

Tooling

Any tooling required must be done immediately after application the sealant before it sets (approx. 1 minute)

The use of use soapy water as a tooling aid is not recommended as the cure of the sealant may be adversely affected.

Cleaning

Equipment should be cleaned promptly by wiping with Fosroc Solvent 10, as cured sealant is very difficult to remove. Cured sealant can only be removed by mechanical methods.

Limitations

Nitoseal PY350 should not be applied in close proximity to bituminous materials or products containing reclaimed rubber (e.g. some tile adhesives). If any doubt exists, contact Fosroc.

Nitoseal PY350 is not suitable for expansion joints in concrete due to the product's limited movement accommodation.

Supply

Nitoseal PY350 is supplied in dual 300ml cartridges (600ml total) in cartons of 10.

Nitoseal PY350 Grey 600ml:	FC920125-600ML
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Nitoseal PY350 is also available made to order in 40 litre kits: Min order qty. 20 kits; Lead time 14 - 21 days.

Nitoseal PY350 Part A 20kg MTO:	FC920123-20KG
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Nitoseal PY350 Part B 20kg MTO:	FC920124-20KG
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Ancillaries

Fosroc Polyurea WCS Manual Gun:	FC007087-UNIT
Nitoseal PY350 Static Mixer:	FC920126-UNIT
Primer 13 (250ml pack):	Base: FC965229-125ML Hardener: FC965230-125ML
Primer 13 (1 litre pack MTO):	Base: FC965229-500ML Hardener: FC965230-500ML

Coverage

As a guide, each 600 ml pack of Nitoseal PY350 will seal 4.2 metres of a 12 mm wide x 12mm deep joint.

Each 40kg pack will yield approximately 38 litres of mixed product.

Storage

Shelf life 12 months in unopened containers stored under cool, dry conditions.

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Nitoseal® PY350

Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS 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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