Fosroc®
Nitoseal® PU400

constructive solutions

(Replaces Emer-Seal PU40)

High performance polyurethane sealant for joints in trafficable and water immersed applications

Uses

For sealing trafficable floor joints, metal or concrete water retaining structures, joints in concrete culverts and pipes, metal frame building assembly, cover plates and covering, bolted lap joints and sealing pipe penetrations in walls and floors.

Also suitable for use as a sealant or adhesive.

Advantages

- Ideal for wide floor joints
- Tough and abrasion resistant
- Suitable for foot and light vehicle traffic areas
- Excellent primerless adhesion
- Low stringing
- Low odour
- Weather resistant
- Easy to gun out
- Suitable for water immersed applications when used with appropriate primer (check application with Fosroc)
- Suitable for use in contact with drinking water

Standards Compliance

Nitoseal PU400 has been tested to comply with AS4020:2018. Refer to AWQC Report 314208.

Copies of the report are available on the Fosroc website.

Description

Nitoseal PU400 is a low modulus elastomeric joint sealant/ adhesive based on polyurethane technology. Nitoseal PU400 uses a cure system reacting on exposure to atmospheric moisture. When cured it forms a waterproof and durable seal, which makes it ideal for exterior applications.

Design Criteria

The movement accommodation factor (MAF) of a joint sealant must be considered in the design width and spacing of movement joints in a structure.

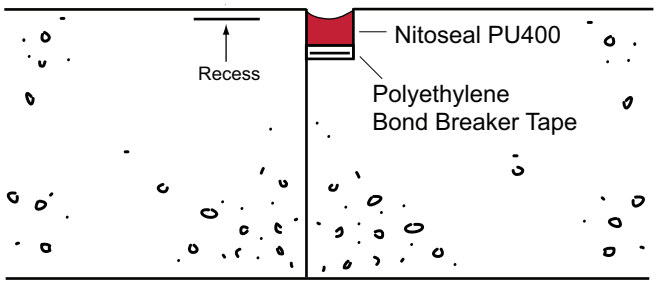
Nitoseal PU400 is designed for movement joints between 10mm and 35mm wide.

The sealant Width to Depth ratio should be kept at a minimum depth of 10mm for joint widths between 10mm and 20mm, and 2:1 for joint widths greater than 20mm.

Joints subject to hydrostatic pressure should be sealed with minimum depth of 20mm (typically 20mm wide).

Joints down to 5mm wide may be sealed with Nitoseal PU400 however sealants with a higher MAF such as Nitoseal SC800 should also be considered.

Typical construction joint



Properties

Form:	Smooth, non-slump paste
Movement accommodation factor:	± 12.5% (total 25%)
Tack-free time:	40 mins (+/-10 mins) at 23°C, 50% RH
Cure rate:	24 hours to 3 mm
Typical hardness:	40 Shore 'A' (ISO 868)
Modulus @ 100% extension:	0.30 - 0.40 MPa (ISO 8339)
Elongation at break:	>400%
Tensile strength:	2 - 2.5N/mm^2
Service temperature:	- 40°C to + 70°C
VOC content:	105.6g / litre

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Application Instructions

Preparation

The joint surfaces must be thoroughly dry, clean and frost free. Remove all dirt, laitance, curing compounds, form release agents, loose materials and foreign matter from the joint faces. Remove all rust, scale and protective lacquers from metal surfaces. Non-porous surfaces should be degreased using Fosroc Solvent 10.

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 requirements

Priming of porous substrates is always recommended, however good adhesion can be gained on concrete, timber, metals, ceramics, brickwork and most coating surfaces without the use of primers. Adhesion is improved with use of a primer. To achieve optimum adhesion to concrete and other porous materials use Primer 21; on non-porous materials such as metals use Primer 4. Primer 13 must be used on porous surfaces if the Nitoseal PU400 is to be water immersed.

Gun Loading

Nitoseal PU400 is applied using a suitable sealant gun. Insert the sausage into the gun, cut a slit in the top of the sausage, replace the end cap and apply the sealant.

Application

Extrude sealant firmly into joint to ensure complete contact with joint faces. Smooth finish if necessary with a spatula.

Cleaning

Clean tools immediately after use with Fosroc Solvent 10.

Limitations

Nitoseal PU400 is not suitable for sealing joints in swimming pools - Nitoseal SC600 is recommended for these applications (refer to Nitoseal SC600 TDS).

Do not apply Nitoseal PU400 to bituminous surfaces nor allow bitumen to contact Nitoseal PU400. Nitoseal MB175 is recommended for these applications (refer to Nitoseal MB175 TDS).

Paintability - although polyurethane sealants will generally accept painting with acrylic coatings, it is possible for plasticisers to migrate over time and stain the surface of the coating. Fosroc does not recommend painting over Nitoseal PU400 and recommends the use of Nitoseal MS250 in these applications.

Supply

Nitoseal PU400 is supplied in 600 ml foil sausages.

Nitoseal PU400 Concrete Grey	FC920121-600ML

Primer 13 is supplied in 2 component packs.
(Base and Hardener, supplied in the correct proportions Complete units must be mixed to ensure correct curing)

Primer 13 (250ml pack):	Base: Hardener:	FC965229-125ML FC965230-125ML
Primer 13 (1 litre pack MTO):	Base: Hardener:	FC965229-500ML FC965230-500ML

Primer 21 (250ml):	FC965228-250ML
Fosroc Solvent 10 (4 litre):	FC600800-4L

Coverage

As a guide, one 600 ml sausage will supply 3 metres of 20mm x 10mm sealant bead

Storage

Shelf life is15 months when kept in its original, un-opened packaging and stored in dry conditions between +10ºC and 25ºC with 55% relative humidity, away from direct sunlight and moisture.

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