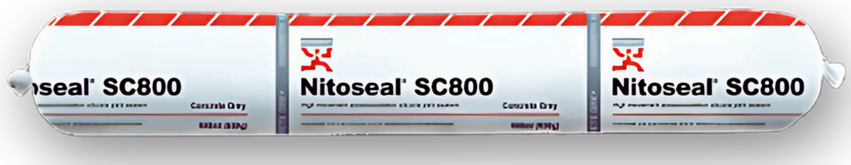
TECHNICAL DATA SHEET

Nitoseal SC800

PRODUCT DESCRIPTION

Nitoseal SC800 is a one-part, gun-applied, low modulus silicone rubber joint sealant formulated with Roadseal® technology. It provides high joint movement accommodation, durability, and excellent adhesion to clean concrete. Specially designed for heavy-duty infrastructure, Nitoseal SC800 is resistant to weathering, UV, and ozone, with a proven movement capacity of +100% and −50%.



FEATURES & BENEFITS

- Ready to use – no mixing required
- Fast rate of cure for efficient project turnaround
- Excellent adhesion to clean, dry concrete
- Weather, UV, and ozone resistant
- Dispensed easily from bulk containers by an air-powered pump
- Exceptional movement capability: +100% / −50%

APPLICATIONS

- Concrete roads and pavements
- Bridge decks and car parks
- Aircraft runways and aprons

STANDARD COMPLIANCE

- ASTM D5893 Type NS (meets requirements)
- NSW RMS Bridge Decks QA Spec. B312 Ed 4/Rev 0 & RMS D&C B312 Ed 1/Rev 2
  - Type GN – Accepted for use
  - Type GT – Meets performance requirements (except hardness)
- NSW RMS Rigid Pavements Spec R83.4 Ed 3/Rev 0 (Section 2.9) – Accepted for use

DESIGN CRITERIA

- Recommended for sealing joints 10–35 mm wide.
- Can also be used in joints as narrow as 5 mm and up to 50 mm under suitable conditions.
- Sealant depth guidelines:
  - Min. 7 mm for joints <10 mm wide
  - 10 mm for joints between 10–20 mm wide
  - 2:1 (width:depth) for joints >20 mm wide
- Sealant should be tooled 3–5 mm below the pavement surface.

PACKAGING & AVAILABILITY

Product Code	Description
119875	Nitoseal SC800 Sealant 600ml
122098	Nitoseal SC800 Sealant 20L
134578	Nitoseal SC800 Sealant 200L

TECHNICAL SPECIFICATIONS

PHYSICAL PROPERTIES

Property (ASTM)	Requirement	Test Result
Form	n/a	Non-slump paste
Colour	n/a	Concrete Grey
Density (D1475)	n/a	1.355 g/ml
Slump (D2202)	<8 mm	0 mm (Pass)
Flow (D5893, 9.8)	No flow @ 72h/93°C	Zero flow (Pass)
Hardness (C661)	<25 A-2 / >30 OO	24 / 83 (Pass)
Extrusion rate (C1183)	>20 ml/min	87.5 ml/min
Tooling time	n/a	20 min @ 23°C
Tack-free time (C679)	No transfer @ 5h	45–60 min
Cure rate (25 °C / 65% RH)	n/a	3 mm/24h, then 1 mm/day
Heat aging (C792)	<10% loss	0.4% (Pass)
Bond to mortar (D5893, 9.6)	No cracking	Pass
Ultimate elongation (D412)	>600%	753%
Tensile stress @ 150% (D412)	<0.31 MPa	0.30 MPa
Resilience (D5893, 9.11)	>75%	98%
Weathering (C793)	5000 h	Pass
Service temperature range	n/a	−50 °C to +150 °C
VOC content	n/a	52 g/L

APPLICATION INSTRUCTIONS

Joint Preparation

- Concrete must be at least 14 days old.
- Joints must be clean, dry, and free from slurry, dirt, oils, and contaminants.
- Saw cut joints: thoroughly wash with high-pressure water, then dry with compressed air, leaving 16 hours for drying.
- For previously sealed joints: remove old sealant mechanically before preparing the joint.

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Bond Breakers and Backing Rods

- Install a closed-cell polyethylene backing rod or polyethylene bond breaker tape to prevent three-sided adhesion.
- Set the bond breaker so the finished sealant surface is 5 mm below the pavement surface.

Sealant Application

- Apply only when ambient temperatures are 5 °C–35 °C.
- Insert closed cell polyethylene backer rod or bond breaker tape.
- Apply sealant using 600 ml sausages or bulk drums with a suitable pump.
- Tool within 10 minutes of application, ensuring sealant is 5 mm below pavement surface.

Tooling

- Tool immediately using a smooth convex tool.
- Do not use soapy water or tooling agents.

Cleaning

- Clean uncured sealant with solvent
- Once cured, removal requires mechanical means.

Coverage:

- 600 ml sausage ≈ 6 m of 10 × 10 mm joint
- 20 L drum ≈ 200 m of 10 × 10 mm joint

Limitations

- Do not apply near bituminous materials – migration may cause staining or adhesion issues.
- Joints in asphalt roads should not be sealed with Nitoseal SC800.

Storage:

- Shelf life: 3 years (unopened)
- Store in cool, dry conditions at +10 °C to +25 °C, 55% RH
- Protect from sunlight and moisture

Chemical Resistance

- Resistant to dilute acids and alkalis.
- Not resistant to organic solvents.
- Resistant to occasional spillage of Skydrol and Jet Fuel.
- Contact Danterr for specific resistance advice.

SAFETY INFORMATION

Classification

- Hazardous, Non-Dangerous Goods (Safe Work Australia GHS 7)
- Not classified as Dangerous Goods for road, rail, sea, or air transport

GHS Hazard Class

- Skin Sensitisation – Category 1
  - **Signal Word**: Warning
  - **Hazard Statement: H317** – May cause an allergic skin reaction

Precautionary Statements

- Prevention: Avoid breathing vapours, mist, or spray. Wear gloves, protective clothing, and eye/face protection. Wash your hands after handling.
- Response: If on skin, wash with soap and water. If irritation persists, seek medical advice. Remove contaminated clothing and wash before reuse.
- Disposal: Dispose of product and containers in accordance with local regulations.

First Aid Measures

- **Inhalation:** Move the victim to fresh air. Seek medical advice if symptoms persist.
- **Skin Contact:** Wash with soap and water. Seek medical attention if irritation continues.
- **Eye Contact:** Rinse with water for several minutes. Seek medical attention if irritation persists.
- **Ingestion:** Rinse mouth, do not induce vomiting. Give water to drink, seek medical advice.

Fire Fighting Measures

- Suitable media: Water fog, alcohol-resistant foam, standard foam, dry chemical, or CO_2
- Hazards: May emit toxic fumes if burning
- Protection: Firefighters should wear SCBA and protective clothing

Accidental Release Measures

- Small spills: Wipe with an absorbent cloth or paper
- Large spills: Contain with sand/soil, collect in sealed containers

Exposure Controls / PPE

- Natural ventilation is generally adequate
- PPE: Safety shoes, nitrile gloves, safety glasses, overalls
- Hygiene: Wash hands before eating, drinking, or smoking

Stability & Reactivity

- Stable under normal conditions
- Avoid heat, ignition sources, oxidisers
- May release carbon oxides and toxic fumes if burned

Toxicological Information

- Inhalation: May irritate the respiratory tract
- Skin: May cause allergic reaction/dermatitis
- Eyes: May cause irritation
- Ingestion: May cause nausea or GI irritation
- Not mutagenic, carcinogenic, or reproductive toxicant

Ecological Information

- Avoid release to waterways
- Not hazardous to aquatic life (acute or chronic)

Disposal Considerations

- Dispose via licensed contractors
- Do not pour into drains, waterways, or landfill
- Recycle packaging where possible

Transport Information

- Not classified as Dangerous Goods (road, rail, sea, or air)

Regulatory Information

- All ingredients listed on/exempt from AIIC (Australia) and NZIoC (New Zealand)
- HSNO Group Standard: HSR002544 – Construction Products (Subsidiary Hazard) Group Standard 2020

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