BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET
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ELASTOMERIC JOINT SEALANTS

Sika® Duoflex® NS/SL

TWO-COMPONENT, POLYSULPHIDE SEALANT

Description

Sika® Duoflex® is a two-component, premium-quality polysulphide sealant, available in both non-sag and self-levelling versions.
Sika® Duoflex® NS: A non-sag sealant specifically designed for vertical and overhead applications.
Sika® Duoflex® SL: A self-levelling sealant ideally suited for quick application to horizontal surfaces.

Where to Use

Sika® Duoflex® is suitable for either exterior or interior use in both static and dynamic joints.
Sika® Duoflex® NS is suitable for sealing:
- Joints in precast concrete.
- Joints in glass and metal curtain wall construction.
- Expansion and control joints in concrete and masonry walls.
- Joints in metal siding.
- Perimeters of aluminum window frames and metal panels.
- Gas stations.

Sika® Duoflex® SL is suitable for sealing:
- Expansion and control joints in concrete floors.
- Joints in podium deck structures.
- Expansion joints in tile and brick flooring.
- Gas stations.

Advantages

- Tough, elastic, rubber-like seal.
- Remains flexible with expansion and contraction of building component without adhesive or cohesive failure, under suitable design conditions.
- Stays resilient within a wide temperature range.
- Excellent resistance to water, oils, grease, most solvents, mild acids and alkalis.
- Tenacious adhesion to concrete, metal, wood, glass, stone, ceramic and masonry surfaces in any combination, typically without the need for priming.
- Effective under constant immersion or saturated conditions, when suitably primed.
- USDA acceptance (NS grade only).

Technical Data

Packaging	5.7 L unit (1.5 US gal.)
Colour	Grey
Colour Stability	Very good
Yield	Linear Meter of Sealant per Liter

Width	Depth					
mm (in)	**6 (¼)**	**13 (½)**	**19 (¾)**	**25 (1)**	**32 (1¼)**	**38 (1½)**
6 (¼)	24.8					
13 (½)	12.4	6.2				
19 (¾)	8.3	4.1	2.8			
25 (1)	6.2	3.1	2.1	1.6		
32 (1¼)	5.0	2.5	1.7	1.2	1.0	
38 (1½)	4.1	2.1	1.4	1.0	0.8	0.7

Shelf Life	1 year in original, unopened packaging. Store dry between 4 and 35 °C (39 and 95 °F).

Properties at 23 °C (73 °F) and 50 % R.H.

Pot Life	1 hr
Tack Free	6 hrs
Full Cure	7 days
Testing Standards	ASTM C920, Class 25, CGSB 19.24
Application Temperature	4 to 38 °C (39 to 100 °F), ambient and substrate temperatures. Sealant should be installed when joint is at mid-range of its anticipated movement.
Service Range	-40 to 77 °C (-40 to 170 °F)
Movement Capabilities	± 25 %
Elongation at Break ASTM D412	500 % - 550 %
Shore A Hardness ASTM D2240	25 - 30
Abrasion and Puncture Resistance	Excellent
Tensile Strength ASTM D412	1.03 - 1.38 MPa (150 - 200 psi)

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

HOW TO USE

Joint Design

Proper joint design for moving joints is 2:1 width to depth ratio, with a recommended 6 mm (1/4 in) minimum and 13 mm (1/2 in) maximum depth of sealant. For non-moving joints, the width to depth ratio can vary.

Surface Preparation

All joint surfaces must be clean, sound, dry and frost-free. Joint walls must be free of oils, grease, paints, coatings, sealers, curing compound residues, and any other foreign matter that might prevent adhesion. Ideally this should be accomplished by mechanical means. Bond breaker tape or backer rod must be used in bottom of joint to prevent bond.

Priming

For maximum adhesion, including in submerged or immersed applications, the use of Sika® Duoflex® Primer-5050 is necessary (Consult your Sika Canada Technical Sales Representative). A uniform glossy sheen after priming indicates adequate primer. Some surfaces, such as porous concrete, may require two coats. Primer must be tack-free before applying sealant. Sealant must be applied same day as primer. Primed areas left overnight should be re-primed.

Mixing

Add total contents of curing agent (B) into base (A). Mix using a low-speed drill (100 - 300 rpm) and approved mixing paddle. Minimum mixing time is 5 minutes.

Mix until all streaks of curing agent disappear. Scrape down sides of container and excess material from mixing paddle periodically during mixing operation to ensure total dispersion of curing agent into base. Avoid entrapping air in material during the mixing operation. Mixed material must be used within the work life parameters given. Do not attempt to thin or use material that has started to harden. The base and curing components are formulated, manufactured and shipped to be used together. Do not use the curing agent (B) from NS with the base (A) for SL and vice versa.

Application

Recommended application temperatures 4 to 38 °C (39 to 100 °F). Pre-conditioning units to approximately 21 °C (70 °F) is necessary when working at extremes. Move pre-conditioned units to work areas just prior to application.

Apply sealant only to clean, sound, dry, and frost-free substrates. Sika® Duoflex® NS/SL should be applied into joints when joint slot is at mid-point of its designed expansion and contraction.
To place, load directly into bulk gun or use a follower plate loading system. Place nozzle of gun into bottom of joint and fill entire joint. Keeping the nozzle deep in the sealant, continue with a steady flow of sealant preceding nozzle to avoid air entrapment. Also, avoid overlapping of sealant since this also entraps air. Tool as required.

Clean Up

Clean all tools and equipment with Sika® Urethane Thinner and Cleaner. Once hardened, product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

Limitations

Not suitable for:

- Joint movement more than 25 %.
- Glazing applications.
- Improperly prepared or contaminated surfaces.
- Joints involving adhesion to painted surfaces.
- For optimum adhesion in conditions, that include but are not exclusive to submersion or immersion, Sika® Duoflex® Primer-5050 must be used. The use of other priming materials is not permitted unless following indicative testing and under written approval from Sika Canada Inc.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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