BUILDING TRUST

PRODUCT DATA SHEET

Sika® Duoflex SL

Two-Component, Self Leveling, Polysulfide Sealant

PRODUCT DESCRIPTION

Sika® Duoflex SL is a two-component, self-leveling, premium-quality polysulfide sealant ideally suited for quick application to horizontal surfaces. Sika® Duoflex SL meets - ASTM C-920, Type M, Grade SL, Class 25, Use I, NT, M, G, A and O.

USES

Sika® Duoflex SL is suitable for either exterior or interior use in both static and dynamic joints:

- Expansion and control joints in concrete floors.
- Joints in podium deck structures.
- Expansion joints in tile and brick flooring.
- Joints in gas stations / refueling environments
- Resistant to chlorinated water up to 100ppm

CHARACTERISTICS / ADVANTAGES

- Tough, elastic, rubber-like seal.
- Remains flexible with expansion and contraction of building component without adhesive or cohesive failure, based on good joint design.
- 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.

PRODUCT INFORMATION

Packaging	1.5 gallon (5.7 liter) unit
Color	Bronze
Shelf Life	1 year in original, unopened packaging.
Storage Conditions	Store dry between 40 and 95 °F (4 and 35 °C). Condition material to 40 to 100 °F before application. Preconditioning units to approximately 70 °F (21 °C) is necessary when working at the far ends of the application range.

TECHNICAL INFORMATION

Shore A Hardness	25–30	(73 °F (23 °C) 50 % R.H.) (ASTM D-2240)
Abrasion Resistance	Excellent	

Tensile Strength	150–200 psi (1.03–1.38 MPa)	(73 °F (23 °C) 50 % R.H.) (ASTM D-412)
Elongation at Break	500–550 %	(73 °F (23 °C) 50 % R.H.) (ASTM D-412)
Movement Capability	± 25 %	(73 °F (23 °C) 50 % R.H.)
Resistance to Static Puncture	Excellent	
Chemical Resistance	(see Sika Duoflex chemical resistance chart)	
UV Exposure	Very good	
Colour Stability	Very good	
Service Temperature	-40 to 170 °F (-40 to 77 °C)	

APPLICATION INFORMATION

Coverage

1 gallon: Yield in Linear feet

Width/Depth	1/4"	3/8"	1/2"
1/4"	307.9		
3/8"	205.3	136.8	
1/2"	153.9	102.6	77.0
3/4"	102.6	68.4	51.3
1"			38.5
1.25"			30.8
1.5"			25.7

Ambient Air Temperature	39 to 100 °F (4 to 38 °C). Sealant should be installed when joint is at mid-range of its anticipated movement.	
Substrate Temperature	39 to 100 °F (4 to 38 °C). Sealant should be installed when joint is at mid-range of its anticipated movement.	
Pot Life	1 hour	(73 °F (23 °C) 50 % R.H.)
Cure Time	7 days	(73 °F (23 °C) 50 % R.H.)
Tack Free Time	6 hours	(73 °F (23 °C) 50 % R.H.)

APPLICATION INSTRUCTIONS

SUBSTRATE 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. This should be accomplished by mechanical means (e.g. sandblasting, abrasive grinding, etd.). Bond breaker tape or backer rod must be used in bottom of joint to prevent bond.

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

Priming

For maximum adhesion, including in submerged or immersed applications, the use of Sika® Duoflex Primer-5050 is necessary. Consult your Sika Technical Service Representative if unsure if primer is necessary. 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, typically 2 hrs on concrete and 4 hrs on steel at 77 °F (25 °C). Sealant must be applied same day as primer. Primed areas left overnight should be re-primed.

MIXING

Pour entire contents of Component B into pail of Component A and mix using a low speed drill (100–300 rpm) and Sika mixing paddle. Mix for 3–5 minutes to achieve uniform color and consistency. Scrape down sides of pail periodically. Avoid entrapment of air during mixing.

Mixed material must be used within the pot life parameters given. Do not attempt to thin or use material that has started to harden. The individual components are formulated, manufactured and shipped to be used together.

When mixed in cold weather (<50 °F), do not force the mixing paddle to the bottom of the pail. After adding Component B in Component A, mix the top 1/2 to 3/4 of teh pail in the first minute of mixing. After scraping down the sides of the pail, mix again for another minute. The paddle should reach the bottom of the pail between the first and second minute of mixing. Scrap down the sides of the pail a second time and then mix for an additional 2–3 minutes until sealant is well blended.

APPLICATION METHOD / TOOLS

Recommended application temperatures 40 to 100 °F (4 to 38 °C). Pre-conditioning units to approximately 70 °F (21 °C) is necessary when working at the far ends of the application range. Move pre-conditioned units to work areas just prior to application. Apply sealant only to clean, sound, dry, and frost-free substrates. Sika® Duoflex 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 end 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. On floor joints, properly recess the sealant to avoid material over the surface plane. Dry tool as required.

LIMITATIONS

- Do not use the B component from NS with the A component for SL and vice versa.
- The ultimate performance of Sika® Duoflex SL depends on good joint design and proper application
- Primary and secondary immersion applications; Sika® Duoflex Primer-5050 must be used
- Do not apply when moisture vapor transmission exists since this can cause bubbling within the sealant
- When overcoating, an on-site test is recommended to determine actual compatibility.

Not suitable for:
- Joint movement more than ± 25 %.
- Glazing applications.
- Improperly prepared or contaminated surfaces.
- Joints involving adhesion to painted surfaces.

(Consult your Sika Technical Service Representative).

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

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