

MasterSeal SL 189

Ultra-low modulus silicone sealant for concrete to concrete / concrete to asphalt and asphalt to asphalt pavement joints

MATERIAL DESCRIPTION

MasterSeal SL 189 is a high performance one-component, moisture curing, silicone construction sealant. In properly designed and constructed joints the product has been formulated to offer ultra-low modulus, fuel and UV resistant, elastomeric seal. Asphaltic paving materials have low tensile strengths. It is important to use an ultra-low modulus material when sealing these substrates to ensure minimal strain is placed on the asphaltic joint face.

TYPICAL USES

MasterSeal SL 189 has been developed specifically for sealing dynamically moving joints such as expansion and control joints. **MasterSeal SL 189** can be used to seal irregularly shaped and spalled joints. **MasterSeal SL 189** sealing sawcut openings used to encapsulate and seal sensitized wiring loops for control of traffic signals, traffic counters, parking lot gates, ticket dispensers, and other similar equipment. It is also excellent for use in sealing light cans and electrical cable used in airport runway lighting.

ADVANTAGES

- Cold-applied, ready-to-use.
- Ultra-low modulus, durable resilient seal.
- Fuel-resistant.
- Primer free, save labor and time.
- Faster skin-over time, quick open to traffic.
- Flows in to irregular joint widths, No tooling.
- Wide application temperatures: -29°C to 48°C.

STANDARDS

- Conforms to ASTM D5893 Type SL
- Conforms to SS-S-200E (section 4.4.12) Flame test requirements.
- Conforms to FAA P-605 for silicone joint sealants
- Conforms to ASTM C920 Type S, Grade P, Class 100/50, use T.

PACKAGING

MasterSeal SL 189 is supplied in 600ml cartridge (Sold 16 cartridges per box).

TECHNICAL DATA*

Temperature of application	-29°C to 48°C
Extrusion rate, ASTM C1183	200ml/min
Flow, ASTM C639	Smooth, level
Skin formation time (23°C, 50% RH)	~60 mins
Tack free time, ASTM C679	<5 hours
Full cure (23°C, 50% RH)	<21 days
Shrinkage ISO 10563	<10%
Colour	Dark Grey
Specific gravity, ASTM C792	1.3g/cm ³
Hardness, Durometer Shore 00	40
Ultimate Elongation at break ASTM D412	>1000%
Tensile stress @ 150% elongation ASTM D412	1.2MPa
Elastic recovery ASTM D5329	>75%
Movement capability, ASTM C719	+100 / -50%
Movement capability, ASTM C719	>5,000 hours
Effect of heat ageing, ASTM C792	<2% loss
Service Temperature	Cured silicone rubber remains flexible from -29°C to +145°C

APPLICATION

Preparation:

To ensure excellent adhesion the joint profile, including arises should be clean, sound, dry and free from any loosely adherent material which could prevent adequate bond to the substrate.

MasterSeal SL 189 should never be applied to damp or wet concrete or asphalt or installed during inclement weather.

Application:

Using a manual or air-operated gun, install **MasterSeal SL 189** from cartridge into the joint. Fill from the bottom up to within 3mm of the roadway. Where required, strike off just below surface level and remove any excess material. For detailed, recommended surface preparation

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and installation procedures, refer to **MasterSeal SL 189** method statement.

LIMITATIONS

MasterSeal SL 189 is not recommended for continuous water immersion. It should not be applied in totally confined spaces where the sealant is not exposed to atmospheric moisture.

Contact Master Builders Solutions prior to specifying for or installing in airfield runway applications.

CONSUMPTION

Applicable joint length with a 600ml cartridge (in linear meters).

Joint depth (mm)	Joint width (mm) approx.				
	4	6	8	12	20
6	25	16.6	12.5	8.3	5
8	-	12.5	9.3	6.25	3.75
10	-	-	7.5	5	3
12	-	-	-	4.15	2.5

STORAGE AND SHELF LIFE

MasterSeal SL 189 has a shelf life of 12 months from production date when stored in its original packaging at temperatures between 5°C and 25°C.

HEALTH AND SAFETY

Contact with the skin or eyes should be avoided, if ingested, DO NOT induce vomiting. Seek medical attention immediately. Refer to product MSDS.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

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