

# MasterSeal® SL 189

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

## 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 APPLICATIONS

**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

## PACKAGING

**MasterSeal SL 189** is supplied in 600ml sausage and 857ml cartridge, bulk pack on request.

## STANDARDS

Conforms to ASTM D5893 Type SL  
Conforms to SS-S-200E (section 4.4.12) Flame test requirement

Confirms to FAA P-605 for silicone joint sealants  
Conforms to ASTM C920 Type S, Grade P, Class 100/50, use T.

## TYPICAL PROPERTIES\*

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/cm³
Hardness, Durometer Shore 00	40
Ultimate Elongation at break ASTM D412	>1000%
Tensile Stress @ 150% Elongation (psi) 5 specimens; Die C; Rate 20in/min Tested @ 73.4±3.6°F & 50±5%RH; ASTM D 412 Method A	7 Psi
Elastic recovery ASTM D5329	>75%
Movement capability, ASTM C719	+100 / -50%
Accelerated weathering resistance, ASTM C793	>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 GUIDELINES

### SURFACE PREPARATION

To ensure excellent adhesion the joint profile including the 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.

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## PLACING / 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 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.

## COVERAGE / YIELD

**Applicable joint length with a 600ml sausage (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	6.5	3.7
10	-	-	7.5	5	3
12	-	-	-	4.1	2.5

**Applicable joint length with a 857ml cartridge (in linear meters)**

Joint depth (mm)	Joint width (mm) approx.				
	4	6	8	12	20
6	35.7	23.8	17.8	11.9	7.1
8	-	17.8	13.3	8.9	5.3
10	-	-	10.7	7.1	4.2
12	-	-	-	5.9	3.5

## 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.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

## NOTE

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