



# SHEP SILICONE SELECT

## HIGHWAY JOINT SEALANT

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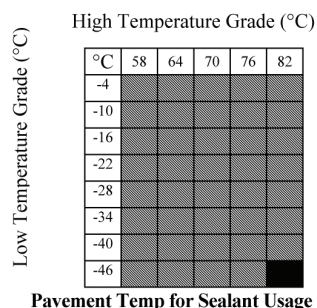
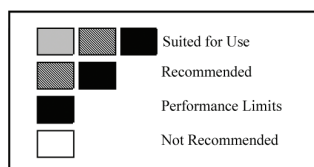
PRODUCT INFORMATION ■ TECHNICAL DATA SHEET

### GENERAL

Shep Silicone Select is a low modulus silicone which offers the performance and durability characteristics of conventional non-sag silicone with the ease of installation of self-leveling materials. Shep Silicone Select is supplied as ready to use one component moisture curing system which provides a lasting and flexible seal. Shep Silicone Select offers outstanding weathering resistance, remains flexible down to temperatures as low as -50°F (-46°C), is jet-blast resistant and will maintain field serviceability when exposed to intermittent fuel and oil spills. It bonds strongly to concrete joints without the use of a primer. Shep Silicone Select can be used in all typical concrete joints. Shep Silicone SL is easily applied to concrete joint applications on highway and airfield pavements in all climates. Shep Silicone Select sealant is compatible with asphalt pavement. Shep Silicone Select is easily applied to concrete joints using bulk dispensing system units such as the RoadStar joint sealant pump or those available from manufacturers including Pyles/Graco and Johnstone. The leveling characteristics insure that the required joint wetting for development of appropriate adhesion occurs during application, with no tooling required. Shep Silicone Select has been a top performing quality Shep product for over 15 years and has achieved the Shep Certified Performance designation. VOC < 75g/l.

### USAGE GUIDELINES

Shep Silicone Select pavement temperature performance limits are 82-46 for joint sealing. Usage recommendations are shown in pavement temperature grade charts shown below. Refer to the Shepler's product selection procedures to determine sealant or filler and pavement temperature grades.



### SPECIFICATION CONFORMANCE

Shep Silicone Select conforms to specification for low modulus silicone for many highway departments and federal agencies. The product also meets and exceeds all requirements of ASTM D5893 "Standard Specification for Cold-Applied Single Component, Chemically Curing Silicone Sealant for Portland Cement concrete Pavements" for type SL sealants. In the following specifications several of the D5893 parameters are more restrictive to better reflect properties of Shep Silicone Select.

#### ASTM D5893 Physical Requirements    ASTM D5893 SL Requirements    Shep Silicone Select Requirements

Cure Evaluation (ASTM C5893)	Pass at 21 days	Pass at 21 days max.
Rheological Properties (ASTM C639)	Type I, smooth level surface	Type I, smooth level surface
Extrusion Rate (ASTM C1183)	Type S, 50 ml/min. minimum	Type S, 200 ml/min. minimum
Tack Free Time (ASTM C 679)	5 hr. max.	3 hr. max.
Effects of Heat Aging (ASTM C 792)	10% max. Loss	10% max. Loss
Bond, -29°C (-20°F), 100% Extension (ASTM D5893)		
Non-Immersed	Pass 5 Cycles	Pass 5 Cycles
Water Immersed	Pass 5 Cycles	Pass 5 Cycles
Oven-Aged	Pass 5 Cycles	Pass 5 Cycles
Hardness (ASTM C 661)		
-29°C (-20°C), Type A2	25 max.	10 max.
-23°C (73°F), Type 00	30 min.	40-80 min.
Flow (ASTM D5893)	No Flow	No Flow
Rubber Properties in Tension (ASTM D412, Method A, Die C)		
Ultimate Elongation	600% min.	800% min.
Stress at 150% Elongation	310 K pa (45 psi) max.	207 K pa (30 psi) max.
Effects of Accelerated Weathering (ASTM C793)	Pass 5000 hours	Pass 5000 hours
Resilience (ASTM D5893)	75% min.	75% min.

### ADDITIONAL PROPERTIES

Specific Gravity (ASTM D792-A) (1)	1.10-1.40
Adhesion to Concrete (MIL 8802) (2)	20 pli (3.5 kg/cm) min.
Bond and Movement Capability +/- 50% (ASTM C719) (2)	Pass 10 cycles
Bond to Mortar (AASHTO T132) (2)	50 psi (34.4 N/cm²) min.
Tensile Adhesion, % (ASTM D5329) (3)	600% min.

Notes: (1) Specimens shall be obtained from 1/8 inch (3mm) thickness sheets of material which has been cured for 7 days at 77 +/- 3°F (25 +/- 2°C) and 50 +/- 5% relative humidity. (2) Specimens cured for 28 days at 77 +/- 3°F (25 +/- 2°C) and 50 +/- 5% humidity prior testing. (3) Specimens shall be 1/2"x1/2"x2" (1.2cm x 1.2cm x 5.0cm), cured 21 days at 77 +/- 3°F (25 +/- 2°C) and 50 +/- 5% relative humidity.

### INSTALLATION

The unit weight is 10.6 pounds per gallon (1.2 kg/L). One gallon will seal 150 feet (45.7m) of 1/2 inch (1.2cm) wide by 1/4 inch (0.6cm) deep joint. Exact yield will vary depending on thickness of sealant, waste, application techniques, etc. Prior to use, the user must read and follow Installation Instructions for Shep Silicone Select Sealants to verify proper

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product selections, applicator pumps, pavement preparation procedures, application geometry, usage precautions and safety procedures. These instructions are provided with each drum of sealant.

### PACKAGING

Shep Silicone Select Sealant is packaged in plastic lined opened head 55 gallon (208 L) drums which contain 50 gallons (189 L) of material. Additionally, for small applications the sealant is available in plastic 5 gallon (18.9 L) pails and quart (875 mL) caulking tubes.

### WARRANTY

CMC Construction Services warrants that Shep Silicone Select sealants meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for preparation of cracks and joints prior to sealing are beyond our control as are the use and application of the sealants; therefore, CMC Construction Services shall not be responsible for improperly applied or misused sealants. Remedies against CMC Construction Services as agreed by CMC CS, are limited to replacing nonconforming product or refund (full or partial) of purchase price from CMC Construction Services. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by CMC Construction Services whichever is earlier. There shall be no other warranties expressed or implied. For optimum performance, follow CMC Construction Services recommendations for sealant installation.