



Technical Data Sheet

DOWSIL™ 890-SL Fast Tack Silicone Joint Sealant

FEATURES & BENEFITS

- Self-leveling, no tooling required.
- Can be extruded from -20 to 120°F.
- Unprimed adhesion to Portland cement concrete.
- Flows into irregular joint widths and does not require tooling.
- Movement capability +100% extension and 50% compression.
- Ultra-low modulus.
- Weather and UV resistant.
- Fuel resistant-short term exposure.
- Cold applied, ready to use as supplied. No heating or special preparation.
- Unprimed adhesion – primer is not required for bonding to Portland cement concrete. For optimum adhesion, the surface must be clean, dry and frost-free.
- Skin over – typically the sealant will have a skin-over time of one hour or less at standard conditions allowing roadways to quickly be opened to traffic.
- Meets or exceeds the requirements of D5893.

COMPOSITION

- One-part, cold applied, self-leveling silicone

Self-leveling silicone sealant for concrete to concrete pavement joints.

DESCRIPTION

DOWSIL™ 890-SL Fast Tack Silicone Joint Sealant is a one-part, self-leveling silicone material that cures to an ultra-low-modulus silicone rubber upon exposure to atmospheric moisture. The cured silicone rubber remains flexible over a wide temperature range in pavement construction applications.

APPLICATIONS

- DOWSIL 890-SL Fast Tack Silicone Joint Sealant can be used for concrete to concrete pavement joints.
- For use in new construction, repair or remedial applications, DOWSIL 890-SL Fast Tack Silicone Joint Sealant flows into irregular joint widths and joints with minor spalling.
- For applications requiring faster tack free times.

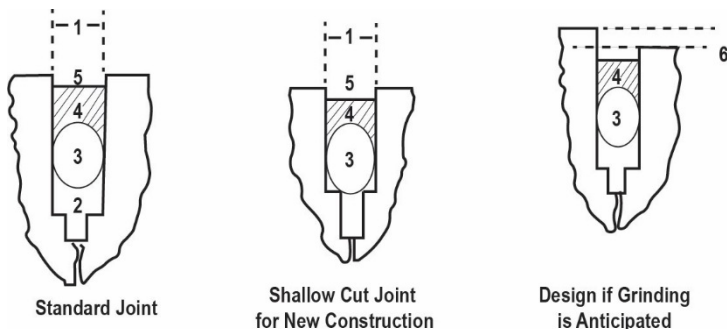
TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications.

Test*	Property	Result
As Supplied		
	Color	Dark gray
ASTM C639	Flow	Pass
ASTM C 1183	Extrusion Rate, ml/min	63
ASTM C 679	Tack Free Time, minutes	< 180
ASTM C 792	Heat Aging	4.1%
ASTM C D2240	Durometer Shore 00	59
ASTM D 1475	Specific Gravity	1.26–1.34
	Cure Time, 1/2" x 1/2" x 2" (73°F, 50% R.H.)	Pass
As Cured – 21 days at 25°C (77°F) and 50% RH		
ASTM D 412 (Die C)	Ultimate Elongation	> 1000%
ASTM D 412 (Die C)	Tensile Stress @ 150%	16 psi
AASHTO T-132	Concrete	71.6 psi
ASTM C 793	Effects of Accelerate Weathering, 5,000 hours	Pass
	Resilience	86%
ASTM C719	Joint Movement Capability, +100/-50 percent, Concrete	

*ASTM: American Society for Testing and Materials

Figure 1: Good Joint Design



1. Joint width wide enough to accommodate movement. (For additional information on joint width, see papers by Spells and Klosowski, "Silicone Sealants for Use in Concrete Construction," Vol. 1, No. 1, American Concrete Institute, SP-70, 1981; J.B. Cook, "Construction Sealants and Adhesives," Wiley-Interscience, 1970; and J.M. Klosowski, "Sealants in Construction," Marcel Dekker, 1989.)
2. Joint sawed deep enough to allow backer rod/sealant placement and space for pumping of old sealant compounds. NOTE: This applies to standard joints only; void space beneath backer rod in new construction is not needed.
3. Proper backer rod placement to prevent three-sided adhesion.
4. Sealant installed to proper depth and width.
5. Sealant recessed a minimum of 3/8 inch to 1/2 inch (9.53 mm to 12.7 mm) below pavement surface.
6. Depth of lowest slab determines the amount of recess required if grinding is anticipated; once grinding is complete, the sealant will have proper recess below the pavement surface.

HOW TO USE

Please refer to the *Silicone Pavement Sealants Installation Guide*, 61-507.

HANDLING PRECAUTIONS

Caution: Before handling sealant, read product and safety data sheets for detailed use and health information.

This product contains a proprietary acetamidosisilane that liberates N-ethyl acetamide (N-EA) during cure. N-EA may cause birth defects based on animal data. Toxicology studies indicate that repeated, pro-longed overexposure to N-EA causes an adverse reproductive effect in laboratory animals. Avoid breathing vapors. Do not use in poorly ventilated spaces. Avoid prolonged skin contact. **KEEP OUT OF REACH OF CHILDREN.**

Fully cured sealant is **nonhazardous**.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS

AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

Keep stored in original, unopened containers at or below 32°C (90°F). Refer to product packaging for "Use By" date. Keep containers tightly closed.

PACKAGING INFORMATION

DOWSIL 890-SL Fast Tack Silicone Joint Sealant is supplied in 29 fl oz (857 ml) disposable plastic cartridge, 4.5 gallon (17 L) bulk pails and 50 gallon (189 L) bulk drums.

LIMITATIONS

DOWSIL 890-SL Fast Tack Silicone Joint Sealant 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.

The sealant should never be applied to wet or damp concrete pavements or installed during inclement weather.

Contact Dow prior to specifying for or installing in airfield runway applications.

Dow does not promote or warrant the use of DOWSIL™ sealants in applications associated with spill containment areas of any kind.

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

SHIPPING LIMITATIONS

None.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and

regulatory compliance specialists available in each area.

For further information, please see our website, www.consumer.dow.com or consult your local Dow representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer’s tests to ensure that our products are safe,

effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow’s sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Table 1: Recommended Backer Rod Installation (Shallow Cut).¹

Measured in Inches						
Joint Width	1/4	3/8	1/2	3/4	1	> 1
Recessed Below Surface	3/8	3/8	3/8 to 1/2	3/8 to 1/2	1/2+	Contact Dow
Sealant Thickness	1/4	1/4	1/4	3/8	1/2	
Backer Rod Diameter	3/8	1/2	5/8	7/8	1 ¹ / ₄	
Total Joint Depth	1–1 ¹ / ₈	1 ¹ / ₈ –1 ¹ / ₄	1 ¹ / ₄ –1 ³ / ₈	1 ⁵ / ₈ –1 ³ / ₄	2 ¹ / ₄ –2 ³ / ₈	
Measured in Millimeters						
Joint Width	6	9	13	19	25	
Recessed Below Surface	9	9	9 to 13	9 to 13	13+	
Sealant Thickness	6	6	6	9	13	
Backer Rod Diameter	9	13	16	22	32	
Total Joint Depth	25–29	29–32	32–35	41–45	57–60	

¹On road surfaces where grinding is planned at a later date, the sealant and backer rod should be installed so that sealant is approximately 3/8 inch (9.35 mm) below the road surface after grinding is complete. An additional small amount should be added to allow for surface imperfections on the bottom and to provide room for old sealant to pump up from below during rehabilitation work in the summer months.

