

Silicone Joint Sealant



Protect Your Joints

Crafco RoadSaver Silicone sealants offer the ideal solution for protecting concrete joints from moisture and debris. This low-modulus, moisture-curing, single-component silicone sealant is available in Non-Sag and Self-Leveling formulations. RoadSaver Silicone provides a flexible seal that can withstand weather, traffic, and thermal movement. In one study, Crafco RoadSaver Silicone achieved a service life of more than 21 years – the longest ever recorded and published.

BENEFITS

- Keeps moisture out of sub-base
- Prevents Foreign Object Debris (FOD) from entering joints
- Remains flexible and durable in any climate
- Withstands weather, traffic and thermal movement



Why Seal Concrete Joints?

Despite concrete's hardness and durability, it is still vulnerable to salt, moisture, incompressible debris and other stresses. The weakest point of a concrete slab is usually the joint where it meets an adjacent slab. Keeping contaminants out of concrete joints significantly increases its service life. RoadSaver Silicone blocks salt, moisture and debris from entering concrete joints, preventing chemical and physical degradation. Suitable for highway and airfield pavements in all climates, RoadSaver Silicone maintains its flexibility, allowing it to accommodate thermal expansion and contraction of the concrete while preserving its seal.

Choosing a Silicone Sealant



RoadSaver Silicone SL
(Self-Leveling)
Part Number: 34903



RoadSaver Silicone NS
(Non-Sag)
Part Number: 34902

Crafco RoadSaver Silicone is available in both non-sag (NS, Part No. 34902) and self-leveling (SL, Part No. 34903). Use non-sag silicone on slopes where running is a concern, and use self-leveling silicone on flat pavement or wherever leveling characteristics are desired.

Both NS and SL silicone remain flexible in temperatures as low as -50°F (-46°C), resist jet blast, and can withstand intermittent fuel and oil spills.

The leveling characteristics of RoadSaver self-leveling silicone ensure that the required joint wetting for adhesion occurs during application, with no tooling required. Non-sag silicone requires tooling for proper joint configuration.

All RoadSaver Silicone products are delivered ready to apply, bond strongly to concrete without a primer, and cure with exposure to ambient moisture for a flexible seal that lasts.

RoadSaver Silicone can also protect joints where concrete and asphalt meet. Talk to your Crafco representative for help choosing the right silicone sealant for your application.

Why CrafcO?

Dedicated to Quality, Innovation and Service

We know that “good enough” is never good enough, so we never rest on our laurels. Every batch of CrafcO sealant gets tested for quality and adherence to ASTM specifications. Our team of sealant engineers continually develops and tests new formulations to maximize performance. And our engineering team continually refines our equipment to maximize productivity, ease of use and safety. Our goal is to provide the highest quality and performance on the market, so you can have total confidence in your materials and equipment.

With CrafcO, you get more than a supplier; you get a partner dedicated to your success. Whether you’re a state DOT or a small municipality, a multi-state contractor or just one person in a pickup truck, CrafcO knows your time is valuable and your job is hard even when things go right. That’s why we’re committed to outstanding customer service – to providing useful solutions and building a strong relationship that works for you. Our experienced sales, customer support and Supply Center staff will go the extra mile to make sure your next job is a success, from start to finish and beyond.

Exceptional Service Life

Silicone Sealant Failure by Years of Service Life at Fairchild Air Force Base ^{2,3}

Average Total Failure by Years of Service Life

Product	5 YEARS	10 YEARS	21 YEARS
CrafcO RoadSaver Silicone SL	1%	16%	18%
Competitor A	2%	14%	31% ¹
Competitor B	1%	28% ¹	35% ¹
Competitor C	1%	20%	
Competitor D	10%	23%	
Competitor E	8%	35% ¹	
Competitor F	22%	53% ¹	

1. Based on LTPP Pavement Maintenance (FHWA-RD-99-143) the service life is the time required for 25% of joint length to develop failure, therefore these materials were in the range for replacement.
2. Lynch, Larry N., Chehovits, James G., Luders, David G., and Belangie, Michael. “Twenty One Year Field Performance of Joint Resealing Project at Fairchild AFB.” Transportation Research Record: Journal of the Transportation Research Board, Volume 2361, 2013.
3. Lynch, Larry N., Chehovits, James G., and Luders, David G. “Ten-Year Field Performance Evaluation of Joint Resealing Project.” Transportation Research Record: Journal of the Transportation Research Board, Volume 1795, 2002.

In 1991, CrafcO RoadSaver Self-Leveling Silicone was applied at Fairchild Air Force Base in Spokane, Washington, as part of a study with the U.S. Army Engineer Research and Development Center. The goal was to determine the best materials and processes for sealing joints in concrete pavements, with a focus on sealants that could stand up to jet fuel exposure on runways.

The Federal Highway Administration measures sealant service life as the time required for 25 percent of the joint length to develop sealant failure (FHWA-RD-99-143). Of the 13 sealants applied at Fairchild AFB in 1991, only CrafcO RoadSaver SL remained below the 25 percent threshold by the time the site was re-evaluated in 2012 – a service life of more than 21 years.

Citation: “Joint Resealing Project at Fairchild Air Force Base, Washington - Twenty-One-Year Field Performance,” Transportation Research Record 2361, Pages 98-105



Silicone Usage Guide

The table below provides joint design and estimated silicone volume for various project specifications. Individual projects may vary. Contact your CrafcO representative for more information.

Joint Design for CrafcO RoadSaver Silicone Sealants in PCC Pavements											
	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)
Joint Width*	1/4 (6)	3/8 (10)	1/2 (13)	5/8 (16)	3/4 (19)	7/8 (22)	1 (25)	1 1/8 (29)	1 1/4 (32)	1 3/8 (35)	1 1/2 (38)
Min. Sealant Recess	1/4 (6)	1/4 (6)	5/16 (8)	5/16 (8)	3/8 (10)	3/8 (10)	3/8 (10)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
Backer Rod Diameter ¹	3/8 (10)	1/2 (13)	5/8 (16)	3/4 (19)	7/8 (22)	1 (25)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 3/4 (44)	2 (51)
Sealant Bead Thickness ^{2,3}	1/4 (6)	1/4 (6)	1/4 (6)	5/16 (8)	3/8 (10)	7/16 (11)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
Min. Joint Saw/Reservoir Depth	1 1/8 (29)	1 1/4 (32)	1 1/2 (38)	1 3/4 (44)	1 7/8 (48)	2 (51)	2 3/8 (60)	2 (51)	2 7/8 (73)	3 1/8 (79)	3 3/8 (86)
Min. Backer Rod Depth	1/2 (13)	1/2 (13)	5/8 (16)	11/16 (17)	3/4 (19)	13/16 (21)	7/8 (22)	1 (25)	1 (25)	1 (25)	1 (25)
	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)	ft./gal. (l/m)
Estimated Usage: Non-Sag	245 (20)	149 (12)	112 (9)	70 (6)	51 (4)	35 (3)	26 (2)	23 (2)	18 (1)	16 (1)	15 (1)
Estimated Usage: Self-Leveling	273 (22)	172 (14)	130 (10)	82 (7)	58 (5)	41 (3)	31 (2)	27 (2)	22 (2)	20 (2)	19 (2)

1. Backer rod diameter should not be varied from specified dimensions. If larger sizes are used, increased saw depth is needed.
 2. Sealant bead thickness can vary by + 25% of design value.
 3. Never install RoadSaver Silicone to a depth greater than the joint width (1 to 1).
 *Please contact CrafcO for additional joint size design recommendations.

RoadSaver Silicone is supplied in package sizes including 55-gallon steel drums containing 50 gallons (189 L), 5-gallon (19 L) plastic pails and quart plastic caulking tubes containing 29 ounces (0.82L).

DID YOU KNOW?

CrafcO also offers HighwayStar and RoadStar silicone pumps. We carry the HighwayStar 55-gallon drum pump, which is available with a 5-gallon pail retrofit kit. The HighwayStar pump is suitable for both Self-Leveling and Non-Sag formulations. For RoadStar, we stock a 5-gallon pail pump specifically designed for Self-Leveling silicone.