

R-2182

Low coefficient of friction silicone coating

DESCRIPTION

- Two-part silicone elastomer dispersed in xylene
- Cures to a smooth silicone film that decreases the coefficient of friction (CoF) compared to the uncoated silicone and increases abrasion resistance for moving, sliding, and rubbing parts
- Provides adhesion to silicone substrates that results in a reduction of surface tack
- 1:1 Mix Ratio (Part A: Part B)

APPLICATION

- To provide a heat-cured, low-friction coating on cured silicone substrates
- Apply by spraying for best results (dipping may also be utilized)

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance, Part A*	Translucent	ASTM D2090	002
Appearance, Part B*	Colorless to White	ASTM D2090	002
Zahn Cup Viscosity, Cup #2*	13 seconds	ASTM D1084	096
Percent Solids, Mixed*	25%	ASTM D2369	047
Specific Gravity, Pycnometer	0.96	ASTM D891, D1475	022
Work Time	>24 hours	-	008

Cured: 5 minutes minimum at ambient temperature and humidity, then 5 minutes at 150°C (302°F)

Properties tested on a lot-to-lot basis. Do not use the properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications.

INSTRUCTIONS FOR USE

Coating and Application

The part being coated with the dispersion should be free of contamination, should not inhibit the cure, and should be able to withstand the cure cycle.

Although the R-2182 may be applied by means of dipping or brushing, it has been found that optimal results are obtained through spraying techniques.

The following instructions apply to airbrush as well as retouch/refinish type spray equipment on parts up to 8" diameter. Suggested spray equipment includes the Badger Airbrush 400, DeVILBISS JGHV-520, or DeVILBISS EGA-503. Parameters may differ based on spray equipment used and the size and geometry of the part to be coated.

1. Clean the surface to be coated thoroughly with an appropriate solvent and lint-free cloth or foam wipe. Allow the solvent to evaporate completely.
2. Thoroughly stir or shake individual components prior to blending to ensure homogeneity. Mix in a 1:1 (Part A: Part B) ratio by weight.
3. Due to low viscosity of R-2182, material may be allowed to self-deaerate.
4. Set air pressure to approximately 90 psi coming from the wall and 10 psi in the gun reservoir. Adjust nozzle opening to the point where the material begins to get atomized.
5. Hold the nozzle 2 – 4 inches from the substrate and apply the coating in a slow and steady up/down or side/side motion. The substrate should be evenly wetted with a fine layer, but not soaked to a point where the coating is pooling or dripping. A final sweeping pass at a distance of 4 – 6 inches may give the coating a more uniform appearance.
6. Allow the bulk of the solvent to evaporate in an area with good airflow and ventilation, such as under a fume hood. This should be accomplished in about 3 – 10 minutes depending on the ambient temperature and airflow.
7. Cure the coating with temperature as suggested on the Standard Material Certification. The material may cure at lower temperatures, but the rate of cure should be determined through trials.

Note: Avoid using isopropanol to clean the coated surface as the coating can be removed by this solvent.

Substrate Considerations

Cures in contact with most materials, exceptions include: sulfur-cured organic rubbers, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents.

Packaging

100 Gram Kit
2 Pint Kit (675 g)
2 Gallon Kit (7.28 kg)
10 Gallon Kit (36.4 kg)

Warranty

12 Months

Substrates with which R-2182 has demonstrated good adhesion are aluminum, titanium, stainless steel and graphite.

ROHS AND REACH COMPLIANCE

Please [contact](#) NuSil Technology's Regulatory Compliance department with any questions or for further assistance.

SPECIFICATIONS

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