Technical Data

Perma-Slik® RRM

Air Dry, MoS₂ Solid Film Lubricant



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Product Description

Perma-Slik RRM is a MoS₂ based solid film lubricant with an inorganic binder system. This coating was developed to lubricate components, which remain in place for long periods of time. Perma-Slik RRM prevents wear, galling, and seizing in a wide variety of environments. Generally, this coating will dry to the touch in less than 30 minutes and is fully cured in 6 hours. Perma-Slik RRM is used in many railroad related applications.

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Features / Benefits				
Excellent thermal stability	 Prevents galling, seizing, and fretting 			
Very good wear resistance	 Ideal for higher load carrying applications 			
Markets	Typical Applications			
 Mechanical components Industrial machinery & equipment Fabricated metal parts Aerospace/defense 	 Railroad switches-manual/electric Cutting tools, and threaded connections Bearing guides and sleeves Cold forming 			
Physical Properties				
Lubricating Solids:	MoS_2			
Binder:	Inorganic			
Color and Appearance:*	Matte dark gray finish			
Carrier:	Solvent borne			
Solids (by weight):*	33% to 38%			
Density:*	9.1 \pm 0.5 lb/gal (1090 \pm 60 grams/liter)			
Flash Point:	15°F (-9°C)			
Volatile Organic Compound:	710 grams/liter (5.92 lb/gal)			
Theoretical Coverage: ¹	497 ft ² /gal @ 0.5 mils (12.1 m ² /liter @ 12.7 microns)			
REACH Compliant:	Yes			
RoHS Compliant:	Yes			
Alternative or Repair Coatings:	N/A			
Processing Information				
Dry Film Thickness	0.2 to 0.7 mils (5 to 18 microns)			
Dilution/Cleanup Solvent:	Heptane or Toluene. Xylene or VM&P mineral spirits may be used as a retarder solvent.			
Dilution Ratio:	1:1 to 2:1 (product to solvent)			
Cure Cycle:	1 to 6 hours @ 77°F ± 10°F			
Suggested Pretreatment:	Grit blast			
Suggested Application Methods:	Dip spin, spray			

For additional information, please see Processing Bulletin #3017

Typical Functional Properties:						
	ASTM Test Method		<u>Value</u>			
Corrosion Resistance						
Test Panel	ASTM B-117		<48 hrs @5% neutral salt spray			
Test Panel Coating Method			0.7 mil on grit blasted steel panel			
Abrasion Resistance	ASTM D-4060		Fair			
Coefficient of Friction	ASTM D-2714		.04 to .06			
Operating Temperature Range			-325°F to 750°F (-198°C to 399°C)			
Load Carrying Capacity	ASTM 2714		>250,000 psi			
Wear Life	ASTM 2625, Method A		>120 minutes			
Chemical Resistance (ASTM D-2510, Method C)						
Isopropyl Alcohol or Ethyl Alcohol	Pass Diethanolamine)	Pass		
Mineral Spirits or Paint Thinner	Pass	Hydrochloric Acid (10%)		N/R		
Toluene	Pass	Sodium Hydroxide (10%)		N/R		
Acetone	Pass	Distilled Water		Pass		
Skydrol 500	Pass	Jet Fuels (JP-4)		Pass		
Hydraulic Fluids	Pass	Trichloroethyle	ne	Pass		
Anti-Icing Fluids	Pass 1,1,1 Trichloroe		ethane	Pass		
Reagent Water	Pass	DC-550		Pass		
Mil-L-2104	Pass	Mil-L-8446 Pa		Pass		
Mil-A-8243	Pass					

Additional Information

Shelf Life and Storage:

One year from date of shipment, stored in a factory sealed container between the temperatures, 40°F to 100°F. Coatings are thermally stable, but we do not recommend prolonged exposure outside of the specified temperature range listed above

<u>Packaging</u>: Perma-Slik RRM is available in 5-gallon pails, gallons and quarts.

Warranty:

No representation or warranty is expressed or implied and all warranties including warranties of marketability and fitness for use are expressly disclaimed. Nothing herein shall be construed as permission or recommendation to practice a patented invention without a license.

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^{*} These tests are performed on each production lot

¹ Based on 100% transfer efficiency at a dry film thickness of 0.0005 inch (12.7 microns).