



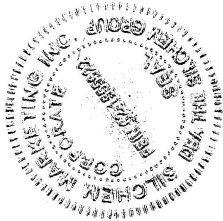
Tech Data Sheet

Siltech 100HV

Siltech 100HV is a single component RTV silicone rubber coating. It has been specially formulated for use on high voltage insulators, equipment bushings and other applications where the prevention of damage due to contamination and surface tracking is desired. Its unique hydrophobic qualities provided the ability to repel water making it self-cleaning. It has excellent dielectric strength and tracking resistance due to the presence of Alumina Trihydrate (ATH) in its formulation. Physical properties included excellent adhesion to a variety of materials including glass, ceramics, resins and metallic surfaces.

Typical Properties

Composition	Color: Gray, White, Brown (Others Available) Type: RTV Silicone One Component Paint
Cure Method	Oxime, Moisture
Characteristics	Hydrophobic-Resist leakage current and flashover
% Solid by Weight (Typical)	70%
% Solid by Volume (Typical)	57%
Specific Gravity (100% Solids-Nominal)	≥ 1.25
Specific Gravity (70% Solids-Nominal)	≥ 1.05
ATH Micron Size Specification (optimum)	≥ 9 ≤ 13
Recommended Dry Film Thickness (DFT)	15-20 mils (381-508 microns)
Coverage Estimate @ 15mils (Theoretical)	1.25 m ² /kg (58 ft ² /Gal)
Number of coats to achieve minimum DFT	1-2
Nominal Skin-Over Time (Typical Range)	>15-30 min. (Contact manufacturer for relevant information)
Nominal Tack-Free Time (Range)	≥45≤100 min.(Contact manufacturer for relevant information)
Complete Cure Time (100%)	≈7 days (varies with environmental conditions)
Functional Cure Time	≈ 6-8 hours (varies with environmental conditions)
Application Temp Range °C (°F)	0°C-65.6°C (32°F-150°F)
Service Temp Range °C (°F)	-46°C-149°C (-50°F-300°F)
Flash Point	38°C (100°F)
Viscosity (#4 spindle at 5 rpm)	6000-7000 cPs
Water Repellency Angle (Glass/Ceramic)	89.0-105.0/84.3-108
STRI Classification for Hydrophobicity	Meets HC 1
Shelf Life @ <100°F (37°C), dry location	12-15 months (unopened container)
Maintenance During Storage	None
Net Product Weight	9.5lb/Gal (1.14 kg/liter)
Safety & Hazards	Refer to MSDS sheet
Recommended solvents for diluting	Stoddard solvent, Varsol 1, Varsol 40, Naphtha



Chemistry is the Science, Silicone is our Business™



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Dielectric Properties⁽¹⁾

Dielectric Strength	ASTM D149	600 Volts/mil (23.6kV/mm)
Dielectric Constant (100Hz/100kHz)	ASTM D150	2.84/2.75
Dissipation Factor (100Hz/100kHz)	ASTM D150	0.041/0.010
QUV Aging (5000 hrs.)	ASTM G154	Pass
Dry Arc Resistance, Track (sec)	ASTM D495	>130
Inclined Plane @ 4.5kV (min)	ASTM D2303	>50
Volume Resistivity	ASTM D257	>5.9 x 10 ¹⁶ ohm-cm

(1) As tested by accredited Independent 3rd party ASTM and IEC 17025 certified test lab.

Applications

Substations: (up to 500kV)	Improve the surface conditions and dielectric characteristics of various insulator surfaces including bus insulators, post insulators, transformer and switchgear equipment bushings and lighting arrestors.
Transmission Systems: (up to 500kV)	Protect ceramic and glass insulator surfaces on string insulators and jumper strings. Can be applied to new insulator surfaces prior to actual installation.
Transformer & Switchgear Bushings (up to 500kV)	Factory applied to new or refurbished bushings to repair or provide future protection.
Switchgear, Motors and Circuit Breakers (up to 500kV)	Coating applied to insulation barrier panels and operating mechanisms where protection from degradation due to contamination and tracking may result in internal flashovers.
Custom or Specialty	AC or DC applications where surfaces may be susceptible to leakage current flows causing damage to the base material or structure.
SF ₆ Switchgear and Equipment	For sealing of equipment bushing metal flanges and surfaces susceptible to leaking of SF ₆ into the environment.

