



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.

Typical Properties

Composition	Color: Primary-Gray Others optional. Type: RTV Silicone One Component
Cure Method	Oxime, Moisture
Characteristics	Hydrophobic Resist leakage current and flashover
% Solid by Weight	70%
% Solid by Volume	57%
Specific Gravity	1.25-1.35
Recommended Dry Film Thickness (DFT)	15-20 mils
Recommended Layers	3 depending on conditions
Coverage Estimate @ 20mils	1 sq-m/kg (46 sq-ft/Gal)
Skin-Over Time	15 min.
Tack-Free Time	30 min.
Complete Curing Time (100%)	~6 hours
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)	7120 cP
Water Repellency Angle (Glass/Ceramic)	105°/108°
Shelf Life @ <100°F (37°C), dry location	12-18 months
Maintenance During Storage	None
Product Weight	9.5lb/Gal (1.14 kg/liter)
Safety & Hazards	Refer to MSDS sheet
Recommended solvents for diluting	Stoddard solvent or Varsol 40





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Dielectric Properties

Dielectric Strength	ASTM D149	400 Volts/mil (15.7kV/mm)
Dielectric Constant (100Hz/100kHz)	ASTM D150	4.02/3.61
Dissipation Factor (100Hz/100kHz)	ASTM D150	0.0645/0.0587
QUV Aging (1000 hrs)	ASTM G154	Pass
Dry Arc Resistance, Track	ASTM D2303	192 seconds
Dry Arc Resistance, Burnout	ASTM D2303	>430 hours
Volume Resistivity	ASTM D257	1.0 x 10 ¹⁴ ohm-cm

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.

