

DOW CORNING® 994 Varnish

FEATURES

- Silicone resin in xylene
- Heat and water resistant
- AIEE Class 220 C insulating material
- DOW CORNING 994 Varnish is the most heat stable varnish available. Glass cloth coated with this varnish retains its flexibility and electric strength after 1 year at 250°C

Heat resistant, water repellent silicone electrical varnish

APPLICATIONS

- Designed for coating glass cloth.
- Also used for coating sleeving and for bonding mica-glass combinations.

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

Property	Unit	Value
Solids content, min.	%	49
Physical nature		Liquid
Color		Light straw
Viscosity at 25°C	mm ² .s ^{a1}	80 to 150
Relative density at 25°C		1.00 to 1.02
Flash point - closed cup	°C	27
Solvent		Xylene
Heat endurance at 250°C - flex life ¹	hours	1000
Heat endurance at 250°C - craze life	hours	10,000
Heat endurance at 300°C - flex life	hours	400
Heat endurance at 300°C - craze life	hours	750
Thermal life at 300°C ²	hours	800
Thermal life at 275°C ²	hours	3000
Thermal life at 250°C ²	hours	9000
Electrical properties, as cured		
Electric strength as received ³	kV/mm	91.5
Electric strength after 24 hours immersion ³	kV/mm	18.0
Permittivity at 25°C 100Hz		2.8
Permittivity at 25°C 100kHz		2.8
Dissipation factor at 25°C 100Hz		0.0015
Dissipation factor at 25°C 100kHz		0.0014

1. Test method ASTM D115 except: tested on aluminium panels because copper oxidizes too rapidly; test temperature increased to 250°C.

2. Hours necessary to reduce the electric strength of glass cloth impregnated with DOW CORNING 994 to 1.8kV/mm as measured by the curved electrode method.

3. 6.35mm electrodes, rapid rise method, in air; 0.05mm film on aluminium panels.

HOW TO USE

DOW CORNING 994 Varnish is ordinarily dip-coated on glass cloth and cured in a high temperature coating tower. In a typical tower operation the cloth passes through a solvent removal zone at 120°C to

175°C for 5 to 10 minutes. The cloth then goes through a curing zone with temperatures of 200°C to 300°C for 15 to 30 minutes.

For coating glass sleeving and bonding mica-glass combinations, a

cure of one hour at 250°C produces a flexible film that is exceptionally heat stable and water repellent.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE FROM YOUR LOCAL DOW CORNING SALES REPRESENTATIVE.

USABLE LIFE AND STORAGE

When stored at or below 25°C in the original unopened containers, this product has a usable life of 30 months from the date of production.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please consult your local Dow Corning representative.

WARRANTY INFORMATION - PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use.

Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. Dow Corning specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless Dow Corning provides you with a specific, duly signed endorsement of fitness for use, Dow Corning disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.