

Varglas Silicone Resin 500 Sleeving

Description

Varglas Silicone Resin 500 Sleeving is a fiberglass braid with a silicone composite coating. This sleeving is best in areas where design requirements specify superior moisture, heat and radiation resistance. In addition to its Class 200°C rating, it also exhibits good low temperature properties. Varglas Silicone Resin Sleeving is available as Silicone Resin 500 in the four top grades and as standard Silicone Resin in Grade C-3 with Silicone Resin 500 being a more flexible product designed to conform to sharp bends.

Specifications

Varglas Silicone Resin 500 Sleeving conforms to, and is listed on the Qualified Products List (QPL) for, MIL-I-3190/5, latest revision (Grade A); NEMA TF-1, Type 4; and ASTM-D372.

Under the Component Program of Underwriters Laboratories, Grade A Varglas Silicone Resin 500 is recognized for 200°C, 600 volt service under UL File #E63450 with sizes 3/8" through and including 1" ID also complying with UL's VW-1 flammability requirements. It is incorporated in systems work, per UL Safety Standard 1446, to facilitate product acceptance by UL. CSA International certifies the use of Grade A Resin 500 for 200°C, 600 volt service under CSA File #LR58486. Additionally, standard Silicone Resin (Grade C-3) complies with UL's VW-1 flammability requirements under UL File #E53690.

Applications

Varglas Silicone Resin 500 Sleeving is used in nuclear motors, electric motors, equipment leads, relay leads and heating cable where flexibility, high dielectric protection and heat endurance are required and temperatures up to 200°C are encountered. Its good abrasion and radiation resistance also find wide use in aerospace and atomic energy applications.

Sizes

AWG #24 through 2" I.D. Other sizes subject to inquiry

Standard Color

Natural. Other colors made to order.

Standard Packaging

Coils, spools or 36" lengths at manufacturer's option, unless otherwise specified. There is no cutting charge for 36" lengths, but lengths other than 36" are subject to cutting charges.

Sizes over 1" I.D. are generally supplied in 36" lengths.



Electrical Insulating Sleeving

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Varglas Silicone Resin 500 Typical Properties

Property	Procedure	Performance
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Physical

Tensile Strength, Coating	ASTM-D412	200 psi
Ultimate Elongation, Coating	ASTM-D412	100% @ 20°C
Hardness, Coating	ASTM-D2240	60 (Durometer)
Flexibility and Toughness, Coating	UL 1441	Passes (Penetration Test)

Chemical

Oil and Solvent Resistance	MIL-I-3190/5	Good
Water Vapor Resistance	MIL-I-3190/5	Excellent
Resistance to Acids and Alkalies	—	Excellent in weak solutions. Fair in concentrated solutions.
Resistance to the Elements	—	Good sunlight and weathering properties.
Compatibility	UL 1446	Good. Compatible with most potting compounds and varnishes.

Electrical

Dielectric Strength after 48/23/50:

Grade A	NEMA TF - 1	8000v min. avg., 6000v min. indiv.
Grade B	NEMA TF - 1	4000v min. avg., 2500v min. indiv.
Grade C - 1	NEMA TF - 1	2500v min. avg., 1500v min. indiv.
Grade C - 2	NEMA TF - 1	1500v min. avg., 800v min. indiv.
Grade C - 3	NEMA TF - 1	No voltage guarantee.

Dielectric Strength after 96/23/96:

Grade A	NEMA TF - 1	80% of Original Value.
Hydrolytic Stability after 336 hrs. @ 70°C over Constant Water Reflux	MIL-I-3190/5	5000 volts min. avg.

Thermal

Thermal Endurance	MIL-I-3190/5 & UL 1441	Class 200°C (H)
Brittleness Temperature	ASTM-D350	- 56°C
Flame Resistance	ASTM-D350, Method B	Passes
	NEMA TF-1	Passes
	MIL-I-3190/5, Method B	Passes
	UL 1441	Passes (VW-1), Grade A in sizes 3/8" through and including 1" ID and Grade HC3 only.

Note:

Information contained here is precise and reliable. However, being unique, each end-use should be evaluated to satisfy its specific requirements.



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