

Varfil Sleeving

Polyester-Modified Vinyl Coated Fiberglass Sleeving

Class 130 (-34°C to +130°C) (-29°F to +266°F)

Description

Varfil Sleeving is braided fiberglass coated with a polyester-modified polyvinyl chloride resin. The composite coating on this Class 130°C sleeving has improved properties over standard polyvinyl plastisol coatings with regard to chemical compatibility and solvent resistance (resists swelling in oil, xylol and trichloroethane). Some users prefer the slight degree of firmness found in Varfil when compared to Varflo (vinyl-coated fiberglass).

Specifications

Varfil Sleeving conforms to military specification MIL-I-3190/2, latest revision (Grade A); NEMA TF-1, Type 2; and ASTM-D876.

Under the Component Program of Underwriters Laboratories, all grades of Varfil Sleeving comply with VW-1 flammability requirements under UL File #E53690.

Applications

Varfil Sleeving finds wide acceptance by motor manufacturers as well as by motor repair shops. It is used to insulate leads in motors, transformers, generators and similar apparatus. Because of its toughness, dielectric strength, good electrical properties and resistance to soldering temperatures, Varfil also is used in electronic circuitry in measuring instruments, computers, etc. and for both original equipment and aftermarket automotive industry applications such as regulators, starters, alternators, etc.

Sizes

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

Standard Color

Yellow and black. 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.

Varfil Typical Properties

Property	Procedure	Performance
Physical		
Tensile Strength, Coating	ASTM-D412	1800 psi
Ultimate Elongation, Coating	ASTM-D412	200% @ 20°C
Tear Strength, Coating	ASTM-D2240	85 (Durometer, Shore A)
Flexibility and Toughness, Coating	UL 1441	Passes (Penetration Test)
Abrasion and Cut-Through Resistance	—	Excellent

Chemical

Oil and Solvent Resistance	MIL-I-3190/2	Good. Does not blister, peel or crack.
Moisture Vapor Resistance	MIL-I-3190/2	Good
Fungus Resistance	MIL-I-631	Passes
Compatibility	UL 1446	Good. Compatible with suitable potting compounds.

Electrical

Dielectric Strength after 48/23/50:

Grade A	NEMA TF - 1	7000v min. avg., 5000v 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., 1500v min. indiv.

Dielectric Strength after 96/23/96:

Grade A	NEMA TF - 1	60% of Original Value.
Hydrolytic Stability after 336 hrs. @ 70°C over Constant Water Reflux	MIL-I-3190/2	5000v min. avg.

Thermal

Thermal Endurance	MIL-I-3190/2	Class 130°C (B) for 15,000 + hrs.
Brittleness Temperature	ASTM-D350	- 34°C
Flame Resistance	UL 1441	Passes (VW-1)
	ASTM-D876	Passes
	NEMA TF-1	Passes
	MIL-I-3190/2, Method A	Passes
Resistance to Potting Temperatures	MIL-I-3190/2	No blisters, flow or cracks visible after 15 min. at 225°C.
Pushback		No cracking or peeling results after pushback and heating to 117°C.

Note:

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



Electrical Insulating Sleeving

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