

# Varflo Sleeving

## Description

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Varflo Sleeving is braided fiberglass coated with a modified polyvinyl chloride resin. Superior plasticizers, along with the best flame retardants and fungicides, make Varflo an outstanding Class 130°C sleeving. It has good flexibility and resistance to oils, solvents and moisture. Varflo has good shelf life and will not lose dielectric strength when subjected to severe twisting.

## Specifications

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Varflo Sleeving conforms to, and is listed on the Qualified Products List (QPL) for, MIL-I-3190/2, latest revision (Grade A); NEMA TF-1, Type 3; and ASTM-D372.

Under the Component Program of Underwriters Laboratories, Grade A Varflo Sleeving is recognized for 105°C, 600 volt service and complies with VW-1 flammability requirements under UL File #E63450. (VW-1 compliance of Grades B through C-1 is covered under UL File #E53690.) CSA International certifies the use of Grade A for 105°C, 600 volt service and flammability requirements under CSA File #LR58486 VW-1/FT1. Varflo is incorporated in systems work, per UL Standard 1446, to facilitate product acceptance by UL.

## Applications

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Varflo Sleeving is used to insulate leads in motors, transformers, generators and similar apparatus. Because of its excellent flexibility, good electrical properties and resistance to soldering temperatures, Varflo is also used in radio and TV as well as other electronic circuitry in measuring instruments, computers, etc. Varflo is used on both original equipment and aftermarket automotive industry applications such as regulators, starters, alternators, etc. primarily because of its toughness, flexibility and dielectric strength.

## Sizes

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

## Standard Colors

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Yellow and black. Other colors made to order.

## Standard Packaging

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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

Varflex Corporation, 512 West Court Street, Rome, NY • Phone (315) 336-4400 • Fax (315) 336-0005

Toll Free 1-800-648-4014 • www.varflex.com • e-mail: sales@varflex.com

# Varflo Sleeving Typical Properties

Property	Procedure	Performance
<b>Physical</b>		
Tensile Strength, Coating	ASTM-D412	1500 psi
Ultimate Elongation, Coating	ASTM-D412	250% @ 20°C
Tear Strength, Coating	ASTM-D2240	80 (Durometer, Shore A)
Flexibility and Toughness, Coating	UL 1441	Passes (Penetration Test)
Abrasion and Cut-Through Resistance	—	Excellent
<b>Chemical</b>		
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.
<b>Electrical</b>		
<b>Dielectric Strength after 48/23/50:</b>		
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.
<b>Dielectric Strength after 96/23/96:</b>		
Grade A	NEMA TF - 1	60% of Original Value.
Hydrolytic Stability after 336 hrs. @ 70°C over Constant Water Reflux	MIL-I-3190/2	5000 volts min. avg.
<b>Thermal</b>		
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. @ 225°C.
Pushback	—	No cracking or peeling results after "pushback" and heating to 177°C.
<b>Note:</b>		
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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