# Uncoated Fiberglass Sleeve



# NU-SLEEVE HV-565

NU-SLEEVE HV-565 is a heavy wall coated fiberglass sleeving made by applying a heavy coating of liquid silicone rubber to a fully annealed fiberglass substrate. The HV-565 sleeving is extremely resistant to abrasion, offers better coating adhesion to the fiberglass compared to extruded type sleevings and has a high heat/flex capacity.

It is highly resistant to end fray and coating fracture, even when stretched over rectangular conductors or wires larger than the normal maximum inside diameter, making it an ideal choice for high stress applications over a wide temperature range up to +200°C. NU-SLEEVE HV-565 is highly resistant to inorganic acids and alkalis. Chlorinated organic solvents and aromatic hydrocarbons will cause some swelling and subsequent reduction in Tensile strength. Testing with ASTM #1 Oil, a slight swelling was produced, while IRM #903 Oil will produce up to 49% volume increase.

NU-SLEEVE HV-565 is used extensively for terminal and leads insulation and protection, as well as in high current dry transformers. It can also be stacked to obtain extremely high dielectric voltage ratings.







## **Characteristics & Properties**

- Colors: red iron oxide only.
- Specifications: MIL-I-3190/6; UL 1441 VW-1; NEMA TF-1 Type 5; ASTM.
- It is UL and CSA recognized: UL E93101 and CSA LR67735.
- Insulation class: R class rated at 200°C (392°F).

Physical properties	Value			
Operating temperature range (NEMA class H)	-70°C / 200°C (-94°F / 392°F)			
Dieletric strength	dry: 15,000 volts, 60 Hz AC @ 500 V/s rate of rise wet: >80% of the dry values			
Dielectric constant	2.86 (10,000 Hz) 2.87 (100 Hz)			
Volume resistivity	6.1 Ohm.cmx10 <sup>14</sup>			
Dissipation factor	.0011 (10,00 Hz) .0016 (100 Hz)			
Tensile strength	8.3 MPa			
Hardness	37 Shore A			
Elongation at break	420 %			
Fungus resistance	Inert - none at 40x			
Rate of burning	self-extinguishing with removal of heat source			
Radiation resistance	no effect - 10 Mrads			
Heat aging	no effect - 275°C (527°F) for 136hr			
Flammability	self-extinguishing			
Abrasion resistance	> 2,000 cycles			

Fluid resistance

no effect to: brake fluid, transmission fluid, antifreeze, washer solution, fuels, power steering fluid, diesel, battery electrolyte, oils...

## **Dimensions**

Designation	NEMA sizes	Nominal Ø		Minimum Ø	Maximum Ø		
		(inches)	(mm)	(inches)	(inches)		
NU-SLEEVE HV-565 AWG 9	9	0.119	3.02	0.114	0.124		
NU-SLEEVE HV-565 AWG 8	8	0.135	3.43	0.129	0.141		
NU-SLEEVE HV-565 AWG 7	7	0.148	3.76	0.144	0.158		
NU-SLEEVE HV-565 AWG 6	6	0.166	4.22	0.162	0.178		
NU-SLEEVE HV-565 AWG 5	5	0.186	4.72	0.182	0.198		
NU-SLEEVE HV-565 AWG 4	4	0.208	5.28	0.204	0.224		
NU-SLEEVE HV-565 AWG 3	3	0.234	5.94	0.229	0.249		
NU-SLEEVE HV-565 AWG 2	2	0.263	6.68	0.258	0.278		
NU-SLEEVE HV-565 AWG 1	1	0.294	7.47	0.289	0.311		
NU-SLEEVE HV-565 AWG 0	0	0.330	8.38	0.325	0.347		
Other sizes							
NU-SLEEVE HV-565 3/8	3/8"	0.387	9.83	0.375	0.399		
NU-SLEEVE HV-565 7/16	7/16"	0.450	11.43	0.438	0.462		
NU-SLEEVE HV-565 1/2	1/2"	0.512	13.00	0.500	0.524		
NU-SLEEVE HV-565 5/8	5/8"	0.640	16.26	0.625	0.655		
NU-SLEEVE HV-565 3/4	3/4"	0.768	19.51	0.750	0.786		
NU-SLEEVE HV-565 7/8	7/8"	0.893	22.68	0.875X	0.991		
NU-SLEEVE HV-565 1	1"	1.018	25.86	1.000	1.036		
NU-SLEEVE HV-565 1 1/8	1 1/8"	1.143	29.03	1.125	1.161		
NU-SLEEVE HV-565 1 1/4	1 1/4"	1.260	31.75	1.250	1.286		

## Packaging

NU-SLEEVE HV-565 is delivered in standard spools, bulk spools or in cut lengths upon request.

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