



PLANT PURCHASING SPECIFICATION BHOPAL

BP 25783

REV NO. 04

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SUPERSEDES
BP 25783 Rev 03

FLEXIBLE SILICONE VARNISHED GLASS BRAIDED SLEEVING (Temp. Index: 180)

1. GENERAL:

This specification governs the quality of flexible silicone varnished glass braided sleeving of circular section, braided from E grade glass fibre yarn, impregnated several times with flexible silicone resin varnish. The material shall have temperature index of at least 180.

NOTE: Levapren 450 of M/S Rhein-Chemie, Germany shall be used for treatment (3 to 6% by weight)

2. APPLICATION:

Used as protection layer over the stator cable leads in A.C. Machines etc.

3. COMPLIANCE WITH NATIONAL STANDARDS:

There is no Indian Standard covering this type of material.

4. DIMENSIONS AND TOLERANCES:

4.1 Sizes:

Bore diameter and length of the sleeving shall be specified on the order.

4.2 Standard Bore Diameter, Wall Thickness & Tolerance.

Shall be as per table below.

Inner dia mm			Wall thickness mm			
Above	Up to	Permissible Allowance	Up to 0.3	Above 0.3 & u to 0.5	Above 0.5 & upto 0.7	Above 0.7 & upto 1.0
0.6	2.1	+ 0.3	± 0.05	± 0.1	—	
2.1	6.1	+ 0.4			± 0.15	
6.1	7.1	+ 0.5				
7.1	11.1					
11.1	12.1	+ 0.8				
12.1	14.1					
14.1	22.1	+ 0.15				
22.1	30.0				± 0.3	

5. COLOUR.

Natural. However any other colour can also be ordered.

Revision :
Reviewed & brought up to date.

Based on SN 56727 Gr.GS-SIK of NMA Siemens.

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6 FINISH:

Sleeving shall be made from yarn, free from defects likely to cause irregularities and be uniform in appearance, reasonably smooth and free from internal and external irregularities. The coating material shall be uniform and continuous and shall adhere firmly to the braid. Sleeve should not form wrinkles while cutting.

7 SAMPLE FOR TEST :

10 metre length of sleeving shall be supplied for testing and approval.

8 TEST METHODS :

Unless otherwise specified, the tests shall be conducted to IEC : 60684-2

9 ELECTRICAL PROPERTIES:

9.1 Electric Strength (Proof) in air at Room Temp.(As Recd):

Wall Thickness (mm)	Proof Voltage (kV)
Less Than 0.5	1.5
0.5 & above	4.0

9.2 Electric Strength (Proof) After Buckling:

Samples shall be subjected to Single buckling around 180 deg. The pressure at the buckling point being 20 N. Samples are then straightened and tested for electric strength (Proof) & shall withstand 3 kV for 1 Min.

9.3 Electric Strength After Bending .

300 mm long sample of sleeving is drawn on to Copper Wires of size 0.6 times the inner dia of sleeve, and wound over metal mandrel of diameter equal to 3.5 times of internal dia of sleeving for 1 to 3 turns.

Samples shall be then tested at 160 ± 4 deg.C at 2 kV for one minute. Samples Shall be kept at 160 ± 4 deg.C for one hour prior to application of voltage.

10 CHEMICAL PROPERTIES:

10.1 Identification of Coating:

The coating shall be silicone varnish when identified by Infra-red spectrophotometer or by any conventional method



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11. TEST CERTIFICATE:

Unless otherwise specified, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of test certificate alongwith their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

BP 25783 (Rev.04) : Flexible Silicone Varnished Glass Braided Sleeving (Temp.Index 180)

BHEL Order No.

Batch/Lot No.

Test values obtained/certificate for compliance for clause 4 to 6 and 9 to 10.

12. PACKING AND MARKING:

The sleeving Shall be suitably packed to prevent from contamination and damage in transit. Each package shall be marked with the following information:

BP 25783: Flexible Silicone Varnished Glass Braided Sleeving (Temp. Index 180).

BHEL Order No.

Manufacturer's Name and Grade.

Batch/Lot No.

Bore Diameter And Length.

Date of Manufacture