

# HEAT SHRINK MEDIUM & HEAVY WALL TUBING FLAME RETARDANT



Insultube is Heat shrink Medium & Heavy wall tubing.

Medium wall tubes (GMW) are used for environmental protection of voltage cable termination and insulating the connectors for low voltage straight through joints / splice rated upto 3.3KV. Heavy wall tubes (GHW) are used for mechanical protection and outer sealing of underground straight through cable joints / splice upto 36KV.

These tubes are manufactured from high quality cross inked polyolefin material.

- Optional hot melt adhesive for complete environmental protection and insulation, according to IP 68 (Ingress Protection)
- Conforms to IEC 60684-3-247 standard.
- Excellent resistance to weathering, UV rays, chemical and solvents.
- Custom dimensions, thickness, length & colours available on request.
- Maximum cut length available - 1200 mm. for GMW / GHW series.
- Halogen free.
- Flame retardant.

### Technical Specification

PROPERTIES	VALUE	STANDARD
<b>Physical</b>		
Tensile Strength	12 N/mm <sup>2</sup> (Mpa) (min.)	ASTM D638
Ultimate Elongation	350 % (min.)	ASTM D638
Density	1.0± 0.2 gm/cm <sup>3</sup>	ASTM D792
Longitudinal Change	-10% (max.)	ASTM D2671
Hardness	45 ± 10 Shore D	ASTM D2240
Water Absorption	0.5 % (max)	ASTM D570
<b>Thermal</b>		
Accelerated Ageing	(150°C for 168 Hrs.)	ASTM D2671
Tensile Strength	12 N/mm <sup>2</sup> (Mpa) (min)	ASTM D638
Ultimate Elongation	300% (min.)	ASTM D638
Low Temperature Flexibility (-40°C for 4 Hrs.)	No Cracking	ASTM D2671
Heat Shock (250°C for 30 Min.)	No Cracking or Flowing	ESI 09-11
Shrink Temperature	125°C	IEC 216
Continuous Temperature Limit	-40 to +110°C	IEC 216
<b>Electrical</b>		
Dielectric Strength (2mm Wall)	12 kV/mm. (min.)	ASTM D149
Volume Resistivity	1 x 10 <sup>12</sup> Ohm. cm (min.)	ASTM D257
Dielectric Constant	5 (max.)	ASTM D150
<b>Weathering</b> : The material from which Medium and Heavy wall tubings are manufactured contains carbon black to protect it from UV light.		

Technical Qualification Report : QR 1013

### Selection Chart

Code	D min. (mm)	D max (mm)	T±10% (mm)	Code	D min. (mm)	D max (mm)	T±10% (mm)
GMW 10/4 - FR	10	4	1.5	GHW 12/5 - FR	12	5	2.4
GMW 12/5 - FR	12	5	1.8	GHW 19/7 - FR	19	7	2.5
GMW 16/6 - FR	16	6	2.0	GHW 25/10 - FR	25	10	2.7
GMW 19/7 - FR	19	7	2.0	GHW 30/12 - FR	30	12	3.0
GMW 22/8 - FR	22	8	2.3	GHW 33/13 - FR	33	13	3.0
GMW 30/12 - FR	30	12	2.6	GHW 40/16 - FR	40	16	4.0
GMW 33/13 - FR	33	13	2.6	GHW 50/20 - FR	50	20	4.0
GMW 40/16 - FR	40	16	2.7	GHW 70/26 - FR	70	26	4.0
GMW 50/20 - FR	50	20	2.7	GHW 95/30 - FR	95	30	4.0
GMW 70/26 - FR	70	26	2.7	GFHW 105/35 - FR	105	35	4.0
GMW 95/30 - FR	95	30	2.7	GHW 115/39 - FR	115	39	4.0
GMW 105/35 - FR	105	35	3.0	GHW 130/42 - FR	130	42	4.0
GMW 115/39 - FR	115	39	3.0	GHW 140/47 - FR	140	47	4.0
GMW 130/42 - FR	130	42	3.2	GHW 160/55 - FR	160	55	4.2
GMW 140/47 - FR	140	47	3.2	GHW180/60 - FR	180	60	4.3
GMW 160/55 - FR	160	55	3.2				
GMW 180/60 - FR	180	60	3.3				

\* New Sizes D,d : Internal Diameter

### Ordering Information

