



**EPOXY GLASS TUFNOL  
TECHNICAL DATA and PHYSICAL PROPERTIES**

**Sheet**

PROPERTY	Grade	Grade	Grade	Grade	UNITS
	10G/40	10G/41	10G/42	10G/44	
	TYPICAL RESULT	TYPICAL RESULT	TYPICAL RESULT	TYPICAL RESULT	
Cross breaking strength	490	470	490	490	MPa
Cross breaking strength at 150°C	-	-	350	360	
- (after 1 hour at 150°C)					
Cross breaking strength at 150°C	-	-	-	250	
- (after 100 hours at 200°C)					
Impact strength, notched, Charpy	60	60	60	60	kJ/m <sup>2</sup>
Compressive strength, flatwise	415	415	415	415	MPa
Compressive strength, edgewise	300	300	300	300	MPa
Tensile strength	355	-	-	-	MPa
Young's modulus	17.7	-	-	-	GPa
Water Absorption					
- 1.6mm thk.	5	5	5	5	mg
- 3mm thk.	7	7	7	7	mg
- 6mm thk.	10	10	10	10	mg
- 12mm thk.	15	15	15	15	mg
Electric strength, flatwise in oil at 90°C					
- 1.6mm thk.	17	17	17	17	MV/m
- 3mm thk.	15	15	15	15	MV/m
- 6mm thk.	12	12	12	12	MV/m
Electric strength, edgewise in oil at 90°C	75	75	70	70	kV
Insulation resistance after immersion in water	1x10 <sup>11</sup>	5x10 <sup>10</sup>	5x10 <sup>10</sup>	5x10 <sup>10</sup>	ohms
Relative density	1.90	1.95	1.90	1.90	-
Loss tangent at 1 MHz	0.017	0.017	0.017	0.017	
Permittivity at 1 MHz	5.0	4.9	5.2	5.2	
Comparative tracking index	285	260	290	290	
Maximum working temperature**					
- continuous	130	130	140	140	°C
- intermittent	150	150	155	155	°C
Thermal classification	Class B	Class B	Class F	Class F	-
Thermal conductivity through laminae	0.42	0.42	0.45	0.45	W/(mK)
Thermal expansion in plane of laminae	1.1	1.0	1.2	1.2	x 10 <sup>-5</sup> /K

**Round Rod**

PROPERTY	Grade	UNITS
	10G/40	
	TYPICAL RESULT	
Flexural strength	600	MPa
Water absorption	0.5	mg/cm <sup>2</sup>
Insulation resistance after immersion in water	5x10 <sup>9</sup>	ohms
Axial electric strength in oil at 90°C	70	kV
Relative density	1.90	-

\*\*Users of highly stressed components at temperatures approaching the maximum are recommended to seek further advice from [www.theplasticshop.co.uk](http://www.theplasticshop.co.uk)

The information given here is believed to be correct, but completeness and accuracy are not guaranteed. The user shall be fully responsible for determining the suitability of products for the intended use.