

## Product Data Sheet EP GC 23 HF

Property	Method of test	Unit	max. or min.	Ref. Value IEC 61212-3-1	Test Value (median)
Flexural stress at rupture, perpendicular to laminations	ISO 178	MPa	min.	<b>300</b>	354,04
Apparent modulus of elasticity in flexure	ISO 178	MPa	min.		
Compressive strength parallel to laminations (axial)	ISO 604	MPa	min.	<b>175</b>	177,98
Impact strength (Charpy) parallel to laminations	ISO 179/3C	kJ/m <sup>2</sup>	min.		
Cohesion between layers	IEC 61212-2	MPa	min.	<b>200</b>	378,04
Tensile strength	ISO 527-4	MPa	min.		
Electric strength at 90°C in oil perpendicular to laminations	IEC 60243-1	kV/mm	min.	<b>7,7</b>	13,25
Breakdown voltage at 90°C in oil parallel to laminations	IEC 60243-1 1 min testing voltage	kV	min.	<b>40</b>	50
Electric strength at room temperature in air perpendicular to laminations	KUN 567.15 1 min testing voltage	kV/3 mm	min.		
Permittivity at 50 Hz	6.2		max.		
Permittivity at 1 MHz	6.2		max.	5,2*	
Dissipation factor at 50 Hz	6.2		max.	0,05*	
Dissipation factor at 1 MHz	6.2		max.	0,04*	
Insulation resistance after immersion in water	IEC 60167	MOhm	min.	<b>1.000</b>	16.320
Proof tracking index PTI	IEC 60112	PTI			
Comparative tracking index CTI	IEC 60112	CTI	min.		600M
Tracking resistance	IEC 60112	Class	min.		
Thermal endurance	IEC 60216	T.I.		130*	130
Flammability	<b>E307596</b> IEC 60707	Class		V-0	V-0
Hot-wire Ignition (HWI)	<b>E307596</b> UL 746A				0
High Amp Arc Ignition (HAI)	<b>E307596</b> UL 746A				1
Density	ISO 1183	g/cm <sup>3</sup>		1,7 - 1,9*	1,740
Water absorption, absolute	ISO 62	mg/cm <sup>2</sup>	max.	<b>1,5</b>	0,38
Water absorption, relative	ISO 62	%	max.		
Glass transition temperature T <sub>G</sub>	DSC	°C	min.		>100

**EP GC 23 HF is manufactured based on type EP GC 202 HFS (sheets). These pipes are thus certified by UL. UL file **E307596****

Base material: Woven E-glass cloth 58%  
Matrix resin: modified Epoxy (epoxide) 42%

\* Are typical values intended to give only general guidance and are not to be considered as requirement of this standard.

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