PRODUCT DATA SHEET

BAGGES TGE-3

RoHSII :	The material is in compliance with EU directive 2011/65/EU (RoHS II)	**Components :**	Glass fabric - epoxy
Color :	Dark yellow	**Nema L1-1 :**	FR5
DIN 7735 :	-	**IEC 61212 :**	-

Mechanical Properties	TestMethod	Value	Unit	Thickness	Note
Flexural strength	ISO 178	400	MPa	id > 100mm	*1
Compressive strength axial	ISO 604	250	MPa		*1
Cohesion between layers	IEC 61212-2 4.3	480	MPa	id < 100mm	*1
Physical Properties					
Density	IEC 1183-A	1,90	g/cm3	All	*1
Water absorption after (24h 23°C)	IEC 62/1	0,2	mg/cm2		*4
Electrical Properties					
Electric strength in oil at 90°C	IEC 60243-1	11,0	kV/mm	B) 3,0 mm	*2
Electric strength in oil at 90°C	IEC 60243-1	60	kV/25mm	B) 3,0 mm	*2
Permittivity 50 Hz	IEC 60250	4,5			*3
Permittivity 1 MHz	IEC 60250	4,5			*3
Dissipation factor 50 Hz	IEC 60250	0,010			*3
Dissipation factor 1 MHz	IEC 60250	0,010			*3
Insulation resistance after immersion in water	IEC 60167	1000	M Ω	A)	*4
Thermal Properties					
Thermal endurance index 20.000h (T.I.)	IEC 60216	180	°C	≥ 3,0 mm	-

Characteristics and applications / Notes and Conditioning

Particularly good electrical and mechanical properties. Extremely high mechanical strength even at high temperatures. Retains electrical properties at high air humidity. High resistance to chemicals, self-extinguishing, halogen free, tracking resistant and low smoke emission and toxicity .Tubes with wall thickness from 1 mm meets the Railway applications EN 45545-2; R22, R23 and R24: Classification HL3. Insulation and construction material for railway, electrical machinery, transformers and chemical plants.

Notes	*Conditioning
A) ID > 8mm and/or OD > 10mm	1: 24h/23°C/50%RH
B) Wall thickness	2: 24h/23°C/50%RH + 1h/Oil 90°C
C) 230 MPa measured at 150°C	3: 96h/105°C + 1h/23°C/20%RH
D) Wall thickness ≥ 4,0mm	4: 24h/50°C + 24h/water 23°C
	5: 96h/105°C + 1h/Oil 90°C

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