PRODUCT INFORMATION

TAROMID B 240 G4 Y2

Polyamide 6 medium low viscosity 20% glass fibres reinforced, halogen free flame retardant UL94 V2, good flame proofing also at low thickness, good flow and good mechanical properties. High CTI value.

ISO short	ISO 1043: PA6-GF20 FR(30)
Form	Pellets
UL file	E143048

Key Features

- Designed for injection moulding applications
- Halogen free
- Flame retardant
- Good flowability
- Antimony trioxide free

Availability

- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- All colours

Compliance

- UL94 V-2
- UL746 A - HWI approved
- UL746 A - HAI approved
- UL746 A - GWIT approved
- UL746 A - GWFI approved
- UL746 A - CTI class 0 approved

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10E13		Cond.
Volume Resistivity	IEC 60093	Ohm cm	10E15		Dry
Dielectric Strength	IEC 60243-1	kV/mm	10		Dry
Dissipation Factor Frequency	IEC 60250	-	3x10E(-7)	100 Hz	Cond.
Dissipation Factor Frequency	IEC 60250	-	1,1x10E(-7)	1 MHz	Cond.
Dissipation Factor Frequency	IEC 60250	-	1,5x10E(-6)	100 Hz	Dry

PRODUCT INFORMATION

TAROMID B 240 G4 Y2

Dissipation Factor Frequency	IEC 60250	-	2,2x10E(-6)	1 MHz	Dry
Surface Resistivity	IEC 60093	Ohm	10E15		Cond.
Dielectric Constant	IEC 60250	-	3,8	1 MHz	Dry
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	600		Cond.
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	600		Dry
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,33		Dry
Filler content	ISO 3451	%	20	850°C - 1 h	
Filler type	ISO 1043	-	GF		
Water Absorption (24h / +23°C)	ISO 62	%	1,4		
Water Absorption at Saturation	ISO 62	%	6,0		
Mould Shrinkage (Parallel)	Internal method	%	0,45		Dry
Mould Shrinkage (Normal)	Internal method	%	0,55		Dry
Melting temperature (DSC)	ISO 11357	°C	222		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	20	250°C - 2,16 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	2900	Speed 1 mm/min	Cond.
Tensile Modulus	ISO 527-1,2	MPa	5900	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	15	Speed 50 mm/min	Cond.
Elongation at Break	ISO 527-1,2	%	2,7	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	48	Speed 50 mm/min	Cond.
Tensile Break Strength	ISO 527-1,2	MPa	82	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	2500	Speed 1 mm/min	Cond.
Flexural Modulus	ISO 178	MPa	5500	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	70	Speed 1 mm/min	Cond.
Flexural Break Strength	ISO 178	MPa	140	Speed 1 mm/min	Dry
IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m^2	3,6		Dry

PRODUCT INFORMATION

TAROMID B 240 G4 Y2

IZOD Notched Impact (+23°C)	ASTM D256	J/m	40		Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	5,5		Cond.
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	3		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	35		Cond.
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	28		Dry
THERMAL					
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	208		
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	190		
Ball Pressure Test	IEC 60695-10-2	°C	175		
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	2,5x10E(-7)	- 30°C / + 30°C	
FLAMMABILITY					
Flame Behaviour (0,75 mm)	UL94	Class	V2		
Flame Behaviour (1,5 mm)	UL94	Class	V2		
Flame Behaviour (3,0 mm)	UL94	Class	V2		
Glow Wire Flammability Index-GWFI (0,75 mm)	IEC 60695-2-12	°C	960		
Glow Wire Flammability Index-GWFI (1,5 mm)	IEC 60695-2-12	°C	960		
Glow Wire Flammability Index-GWFI (3 mm)	IEC 60695-2-12	°C	960		
Glow Wire Ignition Temperature-GWIT (0,75 mm)	IEC 60695-2-13	°C	800		
Glow Wire Ignition Temperature-GWIT (1,5 mm)	IEC 60695-2-13	°C	800		
Glow Wire Ignition Temperature-GWIT (3 mm)	IEC 60695-2-13	°C	800		
Oxigen Index Test (L.O.I.)	ISO 4589-2	%	31,2		
European Railways Certifications R22	EN 45545-2	Class	HL1 - HL2	Thickness 2 mm	
European Railways Certifications R23	EN 45545-2	Class	HL1 - HL2	Thickness 2 mm	
HAI (0,75 mm)	UL746 A	PLC	1		
HAI (1,5 mm)	UL746 A	PLC	1		
HAI (3,0 mm)	UL746 A	PLC	0		
HWI (0,75 mm)	UL746 A	PLC	4		

PRODUCT INFORMATION

TAROMID B 240 G4 Y2

HWI (1,5 mm)	UL746 A	PLC	3
HWI (3,0 mm)	UL746 A	PLC	3

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,08 %
Suggested Max Regrind	< 10 %
Melt Temperature	230 - 260°C
Feed Temperature	210°C
Rear Temperature	235°C
Middle Temperature	245°C
Front Temperature	255°C
Nozzle Temperature	250°C
Mould Temperature	70 - 100°C
Injection Rate	Medium to Fast
Injection Pressure	3 - 12 Mpa
Packing Pressure	5 - 15 Mpa
Screw Revolving Speed	50 rpm @ Diameter 40 mm
Screw Revolving Speed	35 rpm @ Diameter 55 mm
Screw Revolving Speed	25 rpm @ Diameter 75 mm
Cushion	> 3 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2:1 - 2,5:1
Vent Depth	0,02 mm

Notes During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C.