Epranite® BG

A crystalline polyester with internal lubricant, with a high mechanical strength and a very good creep resistance. The material has a low and constant friction coefficient. It is very durable and has a particularly high dimensional stability. Sharp corners and edges in products must be avoided.

Color	: light grey	Sheet	: 8 t/m 100 mm
Mechanical	: easy to machine	Rod	: 10 t/m 150 mm
Glue severability	: not possible	Tube	: 25 t/m 200 mm
Weldability	: not possible	Foil	:
Food contact	: FDA	Fixed formd	:

General properties	Test method	Value	Unit
ISO code	ISO 1183	PETP BG	
Density	ISO 1183-1	1,44	g/cm³
Water absorption in Air (23°C / 50% RH)	ISO 62	0.2	%
Water absorption in Air (23°C / 100% RH)	ISO 62	0.47	%
Resistance to hot water	n/a	-	
Weather resistance	n/a	-	
Mechanical properties			
Elongation at break	ISO 527	5	%
Ball Indention Hardness	ISO 2039	160	MPa
Tensile modulus of elasticity	ISO 527	3000	MPa
Charpy impact strength - notched	ISO 179	2	kJ/m²
Charpy impact strength - unnotched	ISO 179	30	kJ/m²
Compressive stress at 1%	n/a	24	MPa
Coefficient of friction	n/a	0.15~0.22	
Thermal properties			
Melting temperature	n/a	245	°C
Max. allowable service temp (short period)	n/a	160	°C
Max. allowable service temp (long period)	n/a	110	°C
Min. service temperature	n/a	-20	°C
Coefficient of linear expansion	n/a	65	x10 -6 m/(m*K)
Thermal conductivity at 23 °C	n/a	0.29	W/K.m.
Flammability	UL94	HB	
Electrical properties			
Dielectric Dissipation (@1MHz)	ISO 60250	0.001	Ω
Electric Strenght	ISO 60243	20	kV/mm
Surface Resistivity	ISO 60093	>10^14	Ω.cm
Optical properties			
Light transmission	ASTM D1003		%
Refractive index	ISO 489		

Date: 17/06/21