TECHNICAL DATA SHEET

TGH 100 Blue

High Density Polyethylene

Product Description

TGH 100 Blue is a high-density polyethylene (HDPE), dark blue colored similar RAL 5005 with high melt viscosity for extrusion and injection molding. The product is classified as PE 100 and provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. The compound fulfills the material requirements of EN 12201-1 and ISO 4427-1. TGH 100 Blue has been manufactured under TÉCNICAS GÁS licensed technology.

General Information

- **Status Commercial**: Active
- **Application**: Drinking Water Pipe
- **Processing**: Pipe, Sheet
- **Attribute**: Good Creep Resistance; Good ESCR (Environmental Stress Cracking Resistance); Good Organoleptic Properties; Weldable

	Properties	Value	Unit	Test Methods
Physical	Melt Flow Rate @ 190 °C/5.0 kg	0.27	g/10 min	ISO 1133-1
	Melt Flow Rate @ 190 °C/21.6 kg	7.3	g/10 min	ISO 1133-1
	Density	9.0	g/10 min	ISO 1133-1
Mechanical	Flexural Creep Modulus @ 4-point loading / 1 min	1100	MPa	DIN 16841
	Flexural Creep Modulus @ 4-point loading / 24 hr	560	MPa	DIN 16841
	Flexural Creep Modulus @ 4-point loading / 2000 hr	330	MPa	DIN 16841
	Tensile Modulus @ 23 °C	1050	MPa	ISO 527-1, -2
	Tensile Creep Modulus @ 1 hr / 2 MPa	800	MPa	ISO 899-1
	Tensile Creep Modulus @ 1000 hr / 2 MPa	300	MPa	ISO 899-1
	Tensile Stress at Yield @ 23 °C, 50 mm/min	23	MPa	ISO 527-1, -2
	Tensile Strain at Break @ 23 °C	≥350	%	ISO 527-1, -2
	Tensile Strain at Yield @ 23 °C, 50 mm/min	8	%	ISO 527-1, -2
	MRS Classification	10	MPa	ISO 9080
	FNCT, (4.0 MPa, 2% Arkopal N100, 80 °C)	≥1000	hr	ISO 16770
Impact	Charpy Impact Strength – Notched @ 23 °C	26	kJ/m^2	ISO 179-1/1eA
	Charpy Impact Strength – Notched @ -30 °C	13	kJ/m^2	ISO 179-1/1eA
Hardness	Shore Hardness, (Shore D, 3 sec)	62	-	ISO 868
Thermal	Vicat Softening Temperature, (B50)	74	°C	ISO 306
	Oxidation Induction Time, (210 °C)	30	min	ISO 11357-6
	DSC Melting Point	129	°C	DSC
Additional Information	Odor Threshold - measured on pellets / 30°C / 4 h extraction time	≤2	-	EN 1622/EN 1420

NOTED: