

## TGH 5831

High Density Polyethylene

### Product Description

TGH 5831 is a high-density polyethylene resin used in small blow molding applications such as thin-wall packaging, consumer goods and toys. It exhibits a very good combination of high stiffness and high stress cracking resistance. TGH 5831 is delivered in pellet form, demonstrates good organoleptic properties, contains antioxidants and has a broad molecular weight distribution. TGH 5831 is not intended for use in medical and pharmaceutical applications. TGH 5831 has been manufactured under TÉCNICAS GÁS licensed technology.

### General Information

- **Status Commercial:** Active
- **Application:** Bottles For Consumer Goods; Bottles for Industrial Use; Jerry Cans; Sports, Leisure & Toys
- **Processing:** Extrusion Blow Molding
- **Attribute:** Antioxidant; High ESCR (Environmental Stress Cracking Resistance); High Rigidity

	Properties	Value	Unit	Test Methods
Physical	Melt Flow Rate @ 190 °C/2.16 kg	0.30	g/10 min	ISO 1133-1
	Melt Flow Rate @ 190 °C/5.0 kg	1.2	g/10 min	ISO 1133-1
	Melt Flow Rate @ 190 °C/21.6 kg	22	g/10 min	ISO 1133-1
	Density	0.958	g/cm <sup>3</sup>	ISO 1183-1
	Bulk Density	>0.500	g/cm <sup>3</sup>	ISO 60
Mechanical	Tensile Modulus	1350	MPa	ISO 527-1, -2
	Tensile Stress at Yield	28	MPa	ISO 527-1, -2
	Tensile Strain at Yield	7	%	ISO 527-1, -2
	Environmental Stress Crack Resistance, F50 Cond. B, 10% Arkopal N100	150	hr	ASTM D1693
	FNCT, (3.5 MPa, 2% Arkopal N100, 80 °C)	8	hr	ISO 16770
Impact	Charpy Impact Strength - Notched, (-30 °C, Type 1, Edgewise, Notch A)	6.5	kJ/m <sup>2</sup>	ISO 179
	Tensile Impact Strength - notched, -30°C	75	kJ/m <sup>2</sup>	ISO 8256
Hardness	Shore Hardness, (Shore D)	64	-	ISO 868
	Ball Indentation Hardness, (H 132/30)	60	MPa	ISO 2039-1
Processing Parameters	Melt Temperature	180 - 210	°C	-

NOTED: