

Hostalen GM 5010 T3 black

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

Hostalen GM 5010 T3 black is a high density polyethylene (HDPE), black coloured similar RAL 9004 with high melt viscosity for extrusion, injection and compression moulding. The product is classified as PE 80 and provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. It is not intended for medical and pharmaceutical applications.

General

Material Status	• Commercial: Active		
Literature ¹	• Processing - Mold Shrink (English) • Processing - PE Films (English) • Processing - Polyolefin Injection Molding Guide (English) • Technical Datasheet (English)		
Search for UL Yellow Card	• LyondellBasell Industries • Hostalen		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	
Additive	• Carbon Black (2%)		
Features	• High ESCR (Stress Crack Resist.)	• High Viscosity	
Uses	• Piping		
Agency Ratings	• PPI PE-80		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Compression Molding • Extrusion	• Injection Molding • Pipe Extrusion	• Sheet Extrusion

Physical	Nominal Value Unit	Test Method
Density	0.957 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)		ISO 1133
190°C/21.6 kg	9.0 g/10 min	
190°C/5.0 kg	0.43 g/10 min	
FNCT ³ (80°C)	> 20.8 day	ISO 16770

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus - Secant (23°C)	850 MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	22.0 MPa	ISO 527-2/50
Tensile Strain		ISO 527-2/50
Yield, 23°C	8.0 %	
Break, 23°C, 4.00 mm	600 %	
Tensile Creep Modulus ⁴		ISO 899-1
1 hr	640 MPa	
1000 hr	300 MPa	
Flexural Strength (3.5% Strain)	18.0 MPa	ISO 178
Flexural Creep Modulus		DIN 19537-2
-- ⁵	1.00 GPa	
-- ⁶	0.470 GPa	
-- ⁷	0.300 GPa	

Films	Nominal Value Unit	Test Method
Maximum Elongation - TD	> 350 %	EN 638

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179
-30°C	8.0 kJ/m ²	
23°C	24 kJ/m ²	