

Technical Data Sheet

Hostalen GM 5010 T3 BLACK



High Density Polyethylene

Product Description

Hostalen GM 5010 T3 black is a high density polyethylene (HDPE), black colored 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.

This grade is not intended for medical and pharmaceutical applications.

This grade is supported for use in drinking water applications.

Status	Commercial: Active
Availability	Asia-Pacific; Australia and New Zealand; Europe; South & Central America
Application	Drinking Water Pipe; Gas Pipe; Industrial; Soil & Waste Pipe
Market	Industrial, Building & Construction; Pipe
Processing Method	Compression Molding; Pipe; Sheet
Attribute	Good Abrasion Resistance; Good Chemical Resistance; Good Creep Resistance; Good Heat Aging Resistance; Good Organoleptic Properties; Good UV Resistance; Good Wear Resistance; Good Weather Resistance; High Density; High ESCR (Environmental Stress Cracking Resistance); High Viscosity; Weldable

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(190 °C/5.0 kg)	0.43	g/10 min	ISO 1133-1
(190 °C/21.6 kg)	9.0	g/10 min	ISO 1133-1
Density	0.957	g/cm ³	ISO 1183-1
Mechanical			
Flexural Creep Modulus			
(4-point loading / 1 min)	1000	MPa	DIN 16841
(4-point loading / 24 hr)	470	MPa	DIN 16841
(4-point loading / 2000 hr)	300	MPa	DIN 16841
Tensile Modulus, (23 °C)	1050	MPa	ISO 527-1, -2
Tensile Creep Modulus			
(1 hr / 2 MPa)	640	MPa	ISO 899-1
(1000 hr / 2 MPa)	300	MPa	ISO 899-1
Tensile Stress at Yield, (23 °C, 50 mm/min)	22	MPa	ISO 527-1, -2
Tensile Strain at Break, (23 °C)	650	%	ISO 527-1, -2
Tensile Strain at Yield, (23 °C, 50 mm/min)	8	%	ISO 527-1, -2
MRS Classification	8	MPa	ISO 9080
FNCT, (4.0 MPa, 2% Arkopal N100, 80 °C)	>=100	hr	ISO 16770
Impact			



Charpy Impact Strength - Notched		
(23 °C)	24 kJ/m ²	ISO 179-1/1eA
(-30 °C)	8 kJ/m ²	ISO 179-1/1eA
Hardness		
Shore Hardness, (Shore D, 3 sec)	59	ISO 868
Thermal		
Vicat Softening Temperature, (B50)	70 °C	ISO 306
Oxidation Induction Time, (210 °C)	30 min	ISO 11357-6
DSC Melting Point	129 °C	DSC
Additive		
Carbon Black Content	2.25 %	ISO 6964
Additional Information		
Odor Threshold	<2	EN 1622/EN 1420
measured on pellets / 30°C / 4 h extraction time		

Notes

These are typical property values not to be construed as specification limits.

