

Hanwha Total PE P110A

High Density Polyethylene

HANWHA TOTAL PETROCHEMICALS Co., Ltd.

Message:

P110A is a natural high-density polyethylene resin for water and gas transportation pipes. This grade is MRS 10 class material for pressure applications and is designed to be processed in conventional pipe extrusion equipment.

General Information			
Features	High density		
	Workability, good		
	Good cracking resistance		
	Good creep resistance		
	Excellent appearance		
Uses	Piping system		
	Accessories		
Appearance	Natural color		
Forms	Particle		
Processing Method	Pipeline extrusion molding		
	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.952	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.24	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (50°C, F0)	1000	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield	22.6	MPa	ASTM D638
Fracture	34.3	MPa	ASTM D638
Tensile Elongation (Break)	600	%	ASTM D638
Apparent Bending Modulus	834	MPa	ASTM D747
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	200	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-80.0	°C	ASTM D746
Vicat Softening Temperature	122	°C	ASTM D1525 ¹
Additional Information			

Oxidation Induction Time, ISO TR10837, 210°C: > 25 minPipe Stress Rupture, ISO 1167, 12.4 MPa, 20°C: > 100 hrsPipe Stress Rupture, ISO 1167, 5.5 MPa, 80°C: > 165 hrsPipe Stress Rupture, ISO 1167, 5 MPa, 80°C: > 1000 hrsM.R.S., ISO TR9080: > 10 MPaS.C.G., ISO 13479: > 1000 hrsR.C.P., ISO 13477: > 12 Bar

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	160 - 220	°C
Cylinder Zone 2 Temp.	160 - 220	°C
Cylinder Zone 3 Temp.	160 - 220	°C
Cylinder Zone 4 Temp.	160 - 220	°C
Cylinder Zone 5 Temp.	160 - 220	°C
Adapter Temperature	180 - 220	°C
Die Temperature	180 - 220	°C

NOTE

1. 压力1 (10N)

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