QPHD PO354N
High Density Polyethylene Resin

QPHD PO354N is a high density polyethylene blow molding grade offering a good combination of stiffness and stress crack resistance.

Supplier	Qplast
Additive	Thermal Stabilizer: Yes; Antistatic: Yes
Applications	• Drainage Pipes • Food Packaging • Household and Industrial chemical containers • Pharmaceutical Packaging • Thermoformed Parts • Thin Gauge Sheet
Form(s)	Pellets

Resin Properties

	Typical Value	(English)	Typical Value	(SI)	Test Method
Density	0.954	g/cm^3	0.954	g/cm^3	ASTM D1505
Melt Index (190°C/2.16 kg)	0.30	g/10 min	0.30	g/10 min	ASTM D1238

Thermal

Deflection Temperature Under Load (DTUL) at 66psi — Unannealed	167	°F	75	°C	ASTM D648
Vicat Softening Temperature	261	°F	127	°C	ASTM D1525
Peak Melting Temperature	268	°F	131	°C	Proprietary Method
Crystallization Peak, Tc	244	°F	118	°C	Proprietary Method

Molded Properties

Tensile Strength at Yield	4100	psi	29	MPa	ASTM D638
Tensile Strength at Yield 2.0 in/min (50 mm/min)	2900	psi	20	MPa	ASTM D638
Elongation at Yield	9	%	9	%	ASTM D638
Flexural Modulus					
1% Secant: 0.051 in/min (1.3 mm/min)	160000	psi	11000	MPa	ASTM D790A
2% Secant	130000	psi	910	MPa	ASTM D790

Environmental Stress-Crack Resistance 100% Igepal	30 hr	30 hr	ASTM D1693B
Durometer Hardness (Shore D, 15 sec)	63	63	ASTM D2240

Impact

Charpy Notched Impact Strength			ISO 179/1eA
-4°F (-20°C)	2.9 ft·lb/in^2	6.0 kJ/m^2	
73°F (23°C)	4.8 ft·lb/in^2	10.0 kJ/m^2	

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