Qplast™
QPHD P0354N
High Density Polyethylene

QPHD P0354N is a high-density polyethylene grade designed for blow molding applications, providing an excellent balance of stiffness and stress crack resistance.

Supplier	Qplast
Additive	Thermal Stabilizer: Yes; Antistatic: No
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 Break	2900	psi	20	MPa	ASTM D638
Elongation at Yield	8	%	8	%	ASTM D638
Flexural Modulus — 1% Secant 0.051 in/min (1.3 mm/min)	159000	psi	1096	MPa	ASTM D790A
Flexural Modulus — 2% Secant	131000	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	$ft{\cdot}lb/in^2$	6.0	kJ/m^2	
73°F (23°C)	4.8	$ft{\cdot}lb/in^2$	10.0	kJ/m^2	

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1900 Spring Rd suite 430, Oak Brook, IL 60523 quantumpolymers.com