

CERTENE™ HI-864U

High Density Polyethylene
Muehlstein

Message:

HI-864U is a certified prime grade UV STABILIZED resin designed for INJECTION MOLDING of large sized industrial applications requiring superior Toughness and high Stiffness. HI-864U features very narrow molecular weight distribution, easy processability, good Impact strength, very high Rigidity, excellent dimensional stability, and high Warpage resistance. HI-864U suggested applications include bottle and fish crates, fruit and vegetable trays, industrial pails, sport articles, cases, tote bins, and structural foam. HI-864U processing temperature is 220° to 250°C with mold at 20° to 40°C.. HI-864U complies with FDA regulation 21CFR 177.1520 (c) 3.1(a) + 3.2(a) and with most international regulations concerning the use of Polyethylene in contact with food articles.

General Information			
Additive	UV Stabilizer		
Features	Food Contact Acceptable		
	Good Dimensional Stability		
	Good Impact Resistance		
	Good Processability		
	Good Toughness		
	Good UV Resistance		
	High Rigidity		
	High Stiffness		
	Narrow Molecular Weight Distribution		
	Warp Resistant		
Uses	Bottles		
	Crates		
	Food Service Applications		
	Industrial Applications		
	Pails		
	Sporting Goods		
	Structural Foam		
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a		
	FDA 21 CFR 177.1520(c) 3.2a		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	0.964	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.0	g/10 min	ASTM D1238

Environmental Stress-Cracking Resistance (50°C, 100% Igepal, Compression Molded, F50)	3.00	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield, Compression Molded)	32.0	MPa	ASTM D638
Tensile Elongation ² (Break, Compression Molded)	600	%	ASTM D638
Flexural Modulus - 1% Secant ³ (Compression Molded)	1550	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, Compression Molded)	54	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	78.0	°C	ASTM D648
Brittleness Temperature	< -75.0	°C	ASTM D746
Vicat Softening Temperature	125	°C	ASTM D1525
Injection	Nominal Value	Unit	
Processing (Melt) Temp	220 to 250	°C	
Mold Temperature	20.0 to 40.0	°C	
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	1.3 mm/min		

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