Muehlstein

CERTENE™ LLI-2024

Muehlstein - Linear Low Density Polyethylene

Wednesday, January 8, 2025

General Information

Product Description

LLI-2024 is a certified prime resin specially designed for injection molding applications requiring good low temperature resistance and low warpage. LLI-2024 features easy processability over a wide range of molding conditions. LLI-2024 applications include housewares, closures, caps, medical parts, and toys where toughness, high impact resistance and high gloss are required. Recommended processing temperature is180 to 220°C., with mold at 20 to 40°C.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good Processability • Good Surface Finish • Good Toughness	• High Gloss • High Impact Resistance • Low Density	• Low Temperature Impact Resistance • Low Warpage
Uses	• Caps • Household Goods	• Medical/Healthcare Applications • Toys	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.924	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	20	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
50°C, 100% Igepal, Compression Molded, F50	19.0	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield, Compression Molded)	12.4	MPa	ASTM D638
Tensile Elongation [2] (Break, Compression Molded)	500	%	ASTM D638
Flexural Modulus - 1% Secant [3] (Compression Molded)	448	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength (Compression Molded)	71.5	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	-90.0	°C	ASTM D746
Vicat Softening Temperature	123	°C	ASTM D1525

Additional Information

This Specimen was compression molded and was tested according to ASTM D1928 Procedure C.

Processing Information

Injection	Nominal Value	Unit
Processing (Melt) Temp	180 to 220	°C
Mold Temperature	20 to 40	°C

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 50 mm/min

[3] 1.3 mm/min