

# CERTENE™ LLBI-5526

Muehlstein - Linear Low Density Polyethylene

Wednesday, May 15, 2024

## General Information

### Product Description

LLBI-5526 is a certified prime grade, containing Butene-ethylene copolymer designed for High-Flow INJECTION MOLDING of thin-walled high quality applications. LLBI-5526 features superior processability over a wide range of molding conditions, fast cycle times, very good rigidity, high gloss surface, low temperature toughness, and warpage free moldings. LLBI-5526 applications include housewares, margarine tubs, small to medium containers, trash cans, toys, and multicavity lids, closures and caps, where excellent toughness, good impact strength and high gloss are required. Recommended processing temperature is 170 to 210°C., with mold at 20 to 40°C. LLBI-5526 complies with FDA regulation 21CFR 177.1520 (c) 3.1 (a) and most international regulations concerning the use of Polyethylene in contact with food articles.

### General

Material Status	• Commercial: Active		
Availability	• Latin America		
Features	<ul style="list-style-type: none"> <li>• Butene Comonomer</li> <li>• Fast Molding Cycle</li> <li>• Food Contact Acceptable</li> <li>• Good Processability</li> </ul>	<ul style="list-style-type: none"> <li>• Good Toughness</li> <li>• High Flow</li> <li>• High Gloss</li> <li>• High Impact Resistance</li> </ul>	<ul style="list-style-type: none"> <li>• High Rigidity</li> <li>• Low Temperature Toughness</li> <li>• Low Warpage</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Caps</li> <li>• Closures</li> <li>• Containers</li> </ul>	<ul style="list-style-type: none"> <li>• Food Containers</li> <li>• Household Goods</li> <li>• Lids</li> </ul>	<ul style="list-style-type: none"> <li>• Thin-walled Parts</li> <li>• Toys</li> </ul>
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.1a		
Forms	• Pellets		
Processing Method	• Injection Molding		

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	0.926	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	55	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) <sup>2</sup> 50°C, 1.75 mm, 100% Igepal, F50	5.00	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>3</sup> (Yield)	13.8	MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	100	%	ASTM D638
Flexural Modulus - 1% Secant <sup>4</sup>	517	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength	52.5	kJ/m <sup>2</sup>	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-60.0	°C	ASTM D746
Vicat Softening Temperature	92.0	°C	ASTM D1525

### Additional Information

Test specimens from compression molded plaque according to ASTM D 1928 Procedure C.

## Processing Information

Injection	Nominal Value	Unit
Processing (Melt) Temp	170 to 210	°C
Mold Temperature	20 to 40	°C

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### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

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<sup>2</sup> Notched bent strip

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<sup>3</sup> 50 mm/min

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<sup>4</sup> 1.3 mm/min