

# Petrothene® NA209009

Low Density Polyethylene  
LyondellBasell Industries

Message:

PETROTHENE NA 209-009 exhibits excellent processability, low warpage and a combination of softness and toughness desired for LDPE molding. Typical applications include automotive and medical items, toys, closures and lids.  
Without exception, all potential activities for applications in the pharmaceutical, medical device, laboratory and diagnostics area have to be discussed with the relevant Technical (P & AD) and Business contacts first.

General Information			
Features	Food Contact Acceptable		
	Good Processability		
	Good Toughness		
	Low Density		
	Low Warpage		
	Soft		
Uses	Automotive Applications		
	Closures		
	Lids		
	Medical/Healthcare Applications		
	Toys		
Agency Ratings	FDA 21 CFR 177.1520		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	0.925	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	23	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	54		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus - 1% Secant	221	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	13.1	MPa	
Break	8.27	MPa	
Tensile Elongation (Break)	120	%	ASTM D638
Flexural Modulus	310	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	44.0	°C	ASTM D648

Brittleness Temperature	-50.0	°C	ASTM D746
Vicat Softening Temperature	92.0	°C	ASTM D1525
Injection	Nominal Value	Unit	
Rear Temperature	163	°C	
Middle Temperature	177	°C	
Front Temperature	177	°C	
Nozzle Temperature	177	°C	

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#### Recommended distributors for this material

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