

# Braskem PE ML4400N

Linear Low Density Polyethylene

Braskem

## Message:

The resin ML4400N is a Linear Low Density Polyethylene developed for rotational molding. It presents high stiffness and an adequate balance of processability and environmental stress cracking resistance.

Applications:  
Water tanks, parts for the automotive and agricultural segments.

Processing Conditions:  
Conditions comparable to polyethylene resins with similar melt index and density range. Oven Temperature Range: 220 to 350 °C.  
PIAT: 210 a 240°C

Additives:  
Weathering resistance UV8 and antioxidants. conditions comparable to polyethylene resins with similar melt index and density range. Oven Temperature Range: 220 to 350 °C.

Additives:  
Long term UV8 stabilization and antioxidants.

General Information			
Additive	Antioxidation		
	UV stabilizer		
Features	Rigidity, high		
	High ESCR (Stress Cracking Resistance)		
	Antioxidation		
	Good UV resistance		
	Workability, good		
Uses	Agricultural application		
	Application in Automobile Field		
	Water tank		
Agency Ratings	FDA 21 CFR 177.1520		
Forms	Particle		
Processing Method	rotomolding		
Physical	Nominal Value	Unit	Test Method
Density	0.939	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.9	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			ASTM D1693
50°C, 2.00mm, 10% Igepal, molded, F50	28.0	hr	ASTM D1693
50°C, 2.00mm, 100% Igepal, molded, F50	300	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield, molding	21.0	MPa	ASTM D638

Fracture, molding	24.0	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield, molding	13	%	ASTM D638
Fracture, molding	> 1000	%	ASTM D638
Flexural Modulus - 1% Secant (Compression Molded)	670	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Impact Strength			ARM
-40°C, 3.17mm, rotational molding	57	J	ARM
-40°C, 6.34mm, rotational molding	120	J	ARM
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, molded	60.0	°C	ASTM D648
1.8 MPa, unannealed, molded	40.0	°C	ASTM D648
Peak Melting Temperature	126	°C	ASTM D3418
Additional Information			

Oven Temperature Range: 220 to 350 °C.

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#### Recommended distributors for this material

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