

# Marvel™ M90

Linear Low Density Polyethylene  
SCG Chemicals Co., Ltd.

Message:

M9001RW and Marvel M90 are linear-low density polyethylene (LLDPE) for rotational molding applications. M90 is a color compounded form. With excellent stiffness good impact strength and toughness.Both of them are suitable for rotational molding of large water tanks and other general rotational molded articles.

General Information			
Features	Rigidity, high		
	Rigid, good		
	Impact resistance, good		
	Good UV resistance		
	Workability, good		
	Good color stability		
	Good toughness		
	Compliance of Food Exposure		
Uses	Industrial container		
	Agricultural water tank		
	Water tank		
Agency Ratings	FDA 21 CFR 177.1520(c)		
Appearance	Black		
	Available colors		
Forms	Powder		
	Particles		
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)	3.2	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	60		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup>			ASTM D638
Yield	21.0	MPa	ASTM D638
Fracture	28.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	1100	%	ASTM D638

Flexural Modulus	750	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
ARM Impact <sup>3</sup> (-40°C)	122	J	ARM
Crystallization Point	113	°C	ASTM D2117
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	75.0	°C	ASTM D648
Brittleness Temperature	< -60.0	°C	ASTM D746
Vicat Softening Temperature	122	°C	ASTM D1525
Melting Temperature	127	°C	ASTM D2117
Additional Information			
UV Resistance Level: ASTM 2565: 8Typical Oven Temperature: 250 to 300°C			
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	5 mm rotomolded sample		

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#### Recommended distributors for this material

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