

ASTALAC™ ABS M170

Acrylonitrile Butadiene Styrene

Marplex Australia Pty. Ltd.

Message:

ASTALAC™ ABS M170 is a high impact strength ABS designed for sheet extrusion applications requiring superior toughness and abuse resistance whilst maintaining a balance of high gloss, easy formability and product rigidity. Typical thermoformed applications include taxi driver shields, advertising signage blanks and automotive extruded bodyside strips

Note: The letters "UV" or "W" indicate UV stabilisation has been added [ie: ASTALAC™ ABS M170UV].

General Information			
Features	Good Toughness		
	High Gloss		
	High Impact Resistance		
	Medium Rigidity		
Uses	Automotive Applications		
	Automotive Exterior Parts		
	Sheet		
Processing Method	Sheet Extrusion		
	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	14	g/10 min	
230°C/3.8 kg	3.0	g/10 min	
Molding Shrinkage - Flow (3.00 mm)	0.60	%	ASTM D955
Water Absorption (24 hr)	0.25	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (3.20 mm)	40.0	MPa	ASTM D638
Tensile Elongation ² (Break, 3.20 mm)	50	%	ASTM D638
Flexural Modulus ³ (3.20 mm)	2250	MPa	ASTM D790
Flexural Strength ⁴ (3.20 mm)	68.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.20 mm)	330	J/m	ASTM D256
Gardner Impact (3.20 mm)	25.0	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

1.8 MPa, Unannealed, 3.20 mm	77.0	°C	
1.8 MPa, Unannealed, 6.40 mm	83.0	°C	
1.8 MPa, Unannealed, 12.7 mm	88.0	°C	
Vicat Softening Temperature	101	°C	ASTM D1525 ⁵
CLTE - Flow	9.0E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.60 mm)	HB		UL 94
Glow Wire Ignition Temperature (1.60 mm)	550	°C	AS/NZS 60695.2.12
Injection	Nominal Value	Unit	
Drying Temperature	85.0 to 90.0	°C	
Drying Time	3.0 to 6.0	hr	
Processing (Melt) Temp	190 to 230	°C	
Back Pressure	10.0 to 25.0	MPa	
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	170 to 190	°C	
Cylinder Zone 2 Temp.	175 to 200	°C	
Cylinder Zone 3 Temp.	180 to 205	°C	
Cylinder Zone 4 Temp.	185 to 210	°C	
Cylinder Zone 5 Temp.	190 to 220	°C	
Die Temperature	180 to 220	°C	
Take-Off Roll	75.0 to 105	°C	
NOTE			
1.	5.0 mm/min		
2.	5.0 mm/min		
3.	1.3 mm/min		
4.	1.3 mm/min		
5.	Loading 1 (10 N)		

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