

LG ABS XR401B

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Monday, August 12, 2024

General Information

Product Description

Description

XR401B provides good painting quality with chemical resistance, targeted for injection molding

Key Features

High Heat Resistance, Paintability, Chemical Resistance

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	
	• Europe	• North America	
Features	• Chemical Resistant	• High Heat Resistance	• Paintable
Processing Method	• Injection Molding		

ASTM & ISO Properties

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity			
-- ¹	1.05	g/cm ³	ASTM D792
23°C	1.06	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	11	g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage			
Flow : 23°C, 3.20 mm, Injection Molded	0.40 to 0.70	%	ASTM D955
23°C, 3.20 mm	0.40 to 0.70	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Yield, 23°C, 3.20 mm, Injection Molded ²	52.0	MPa	ASTM D638
Yield, 23°C, 4.00 mm, Injection Molded	50.0	MPa	ISO 527-2/50
Tensile Elongation ²			ASTM D638
Break, 23°C, 3.20 mm, Injection Molded	> 20	%	
Flexural Modulus			
23°C, 3.20 mm, Injection Molded ³	2600	MPa	ASTM D790
23°C, 4.00 mm, Injection Molded ⁴	2450	MPa	ISO 178
Flexural Strength			
23°C, 3.20 mm, Injection Molded ³	82.0	MPa	ASTM D790
23°C, 4.00 mm, Injection Molded ⁴	79.0	MPa	ISO 178

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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵			ISO 179/1eA
-30°C, Injection Molded	7.0	kJ/m ²	
23°C, Injection Molded	14	kJ/m ²	
Notched Izod Impact			
-30°C, 3.20 mm, Injection Molded	70	J/m	ASTM D256
-30°C, 6.40 mm, Injection Molded	80	J/m	ASTM D256
23°C, 3.20 mm, Injection Molded	190	J/m	ASTM D256
23°C, 6.40 mm, Injection Molded	210	J/m	ASTM D256
-30°C, Injection Molded ⁵	7.0	kJ/m ²	ISO 180/1A
23°C, Injection Molded ⁵	15	kJ/m ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
R-Scale, 23°C, Injection Molded	111		ASTM D785
R-Scale, 23°C	113		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm, Injection Molded ⁶	105	°C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm	97.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm, Injection Molded ⁶	97.0	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	90.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	106	°C	ASTM D1525 ⁷
--	107	°C	ISO 306/B50

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 90	°C
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	230 to 270	°C
Mold Temperature	40 to 80	°C
Screw Speed	30 to 60	rpm

Notes

¹ 23°C

² 50 mm/min

³ 15 mm/min

⁴ 2.0 mm/min

⁵ 4mm

⁶ Edgewise

⁷ Rate A (50°C/h), Loading 2 (50 N)