

LEXAN™ Copolymer XHT2171 - Europe

Polycarbonate
SABIC

Technical Data

Product Description

XHT2171 is a 55 MVR high flow, high heat polycarbonate copolymer enabling high aesthetics, thin wall and complex designs. It is available in a range of opaque colors.

General

Material Status	• Commercial: Active		
Literature ¹	• Material Solutions for LED Lighting		
Search for UL Yellow Card	• SABIC		
Availability	• Europe		
Features	• Good Processability	• High Heat Resistance	
Uses	<ul style="list-style-type: none"> • Aerospace Applications • Appliances • Automotive Exterior Parts • Automotive Interior Parts • Automotive Under the Hood • Building Materials 	<ul style="list-style-type: none"> • Cell Phones • Computer Components • Electrical/Electronic Applications • Housings • Lighting Applications • Material Handling 	<ul style="list-style-type: none"> • Medical/Healthcare Applications • Military/Defense Applications • Personal Care • Pharmaceutical Packaging • Recreational Vehicle Applications • Water Management
Appearance	• Clear/Transparent	• Translucent	
Processing Method	• Injection Molding		
Also Available In	• Asia Pacific	• Latin America	• North America

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity	1.20 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR)		ASTM D1238
300°C/2.16 kg	22 g/10 min	
330°C/2.16 kg	60 g/10 min	
Melt Volume-Flow Rate (MVR)		ISO 1133
300°C/2.16 kg	19 cm ³ /10min	
330°C/2.16 kg	55 cm ³ /10min	
Molding Shrinkage - Flow (3.20 mm)	0.60 to 0.90 %	Internal Method
Water Absorption		ISO 62
Saturation, 23°C	0.30 %	
Equilibrium, 23°C, 50% RH	0.30 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- ³	2450 MPa	ASTM D638
--	2450 MPa	ISO 527-1/1
Tensile Strength		
Yield ⁴	73.0 MPa	ASTM D638
Yield	74.0 MPa	ISO 527-2/50
Break ⁴	60.0 MPa	ASTM D638
Break	60.0 MPa	ISO 527-2/50
Tensile Elongation		
Yield ⁴	7.0 %	ASTM D638
Yield	7.0 %	ISO 527-2/50
Break ⁴	> 30 %	ASTM D638
Break	> 50 %	ISO 527-2/50
Flexural Modulus		
50.0 mm Span ⁵	2600 MPa	ASTM D790
-- ⁶	2400 MPa	ISO 178



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Mechanical	Nominal Value Unit	Test Method
Flexural Stress		
-- 6, 7	107 MPa	ISO 178
Yield, 50.0 mm Span ⁵	115 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength ⁸		ISO 179/1eA
-30°C	10 kJ/m ²	
23°C	10 kJ/m ²	
Charpy Unnotched Impact Strength ⁸		ISO 179/1eU
-30°C	No Break	
23°C	No Break	
Notched Izod Impact		
-30°C	75 J/m	ASTM D256
23°C	80 J/m	ASTM D256
-30°C ⁹	9.0 kJ/m ²	ISO 180/1A
23°C ⁹	9.0 kJ/m ²	ISO 180/1A
Unnotched Izod Impact		ASTM D4812 ISO 180/1U
-30°C	No Break	
23°C	No Break	
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	125	ISO 2039-2
Ball Indentation Hardness (H 358/30)	147 MPa	ISO 2039-1
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed, 3.20 mm	160 °C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm, 64.0 mm Span ¹⁰	159 °C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	147 °C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm, 64.0 mm Span ¹⁰	146 °C	ISO 75-2/Af
Vicat Softening Temperature		
--	164 °C	ASTM D1525 ¹¹
--	165 °C	ASTM D1525 ¹² ISO 306/B50 ¹²
--	167 °C	ISO 306/B120
Ball Pressure Test (123 to 127°C)	Pass	IEC 60695-10-2
CLTE		ASTM E831 ISO 11359-2
Flow : -40 to 40°C	6.0E-5 cm/cm/°C	
Transverse : -40 to 40°C	6.0E-5 cm/cm/°C	
Thermal Conductivity (25°C)	0.20 W/m/K	ASTM C177
Additional Information	Nominal Value Unit	Test Method
Metallized Haze - Pass (1.50 mm)	155 °C	Internal Method
Injection	Nominal Value Unit	
Drying Temperature	130 °C	
Drying Time	4.0 to 6.0 hr	
Suggested Max Moisture	0.020 %	
Suggested Shot Size	40 to 60 %	
Rear Temperature	270 to 330 °C	
Middle Temperature	280 to 340 °C	
Front Temperature	290 to 350 °C	
Nozzle Temperature	285 to 345 °C	
Processing (Melt) Temp	290 to 350 °C	
Mold Temperature	85 to 130 °C	
Back Pressure	0.300 to 0.700 MPa	



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Injection	Nominal Value Unit
Screw Speed	40 to 90 rpm
Vent Depth	0.025 to 0.080 mm

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ 5.0 mm/min

⁴ Type I, 50 mm/min

⁵ 1.3 mm/min

⁶ 2.0 mm/min

⁷ at Yield

⁸ 80*10*3 sp=62mm

⁹ 80*10*3 mm

¹⁰ 80*10*4 mm

¹¹ Rate A (50°C/h), Loading 2 (50 N)

¹² Rate B (120°C/h), Loading 2 (50 N)



Where to Buy

Supplier

SABIC

Web: <http://www.sabic.com/>

Distributor

AECTRA

Telephone: +33-4-72-54-36-42

Web: <https://www.aectra.fr/>

Availability: Bulgaria, Romania

AGI-Augusto Guimarães & Irmão

Telephone: +351-22753-7400

Web: <https://www.agi.pt/en/>

Availability: Portugal

GRÄSSLIN

Telephone: +49-7721-4040-261

Web: <https://www.graesslin-kunststoffe.de>

Availability: Germany

Guzmán Polymers

Telephone: +34-963-992-400

Web: <https://www.guzmanglobal.com/en/productos/plastics/>

Availability: Italy, Spain, Turkey

Lenorplastics

Telephone: +41-61-706-11-11

Web: <https://www.lenorplastics.ch>

Availability: Switzerland

Plastoplan

Telephone: +43-1-25040-0

Web: <https://www.plastoplan.com/>

Availability: Austria, Czech Republic, Hungary, Slovakia

POLYMIX

POLYMIX is a Pan European distribution company. Contact POLYMIX for availability of individual products by country.

Telephone: +33-3-8920-1380

Web: <http://www.polymix.eu/>

Availability: France

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: Belgium, Netherlands, South Africa

