

XYLEX™ RESIN X8210

REGION EUROPE

DESCRIPTION

PC+POLYESTER alloy. Unreinforced, transparent, impact modified for low temperature ductility

TYPICAL PROPERTY VALUES

Revision 20220809

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	43	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	46	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	150	%	ASTM D638
Tensile Modulus, 50 mm/min	1480	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	65	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	1600	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	45	MPa	ISO 527
Tensile Stress, break, 50 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.6	%	ISO 527
Tensile Strain, break, 50 mm/min	>150	%	ISO 527
Tensile Modulus, 1 mm/min	1500	MPa	ISO 527
Flexural Stress, break, 2 mm/min	58	MPa	ISO 178
Flexural Modulus, 2 mm/min	1600	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	800	J/m	ASTM D256
Izod Impact, notched, -20°C	640	J/m	ASTM D256
Izod Impact, notched, -30°C	200	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	81	J	ASTM D3763
Izod Impact, notched 80°10'4 +23°C	45	kJ/m ²	ISO 180/1A
Izod Impact, notched 80°10'4 -10°C	30	kJ/m ²	ISO 180/1A
Izod Impact, notched 80°10'4 -30°C	11	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10'4 sp=62mm	71	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	97	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	79	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	75	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.1E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.1E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	8.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.9E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	92	°C	ISO 306
Vicat Softening Temp, Rate B/120	97	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120°10'4 sp=100mm	82	°C	ISO 75/Ae
HDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm	81	°C	ISO 75/Af

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Specific Gravity	1.2	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 265°C/2.16kgf	10	g/10 min	ASTM D1238
Melt Flow Rate, 300°C/1.2 kgf	14	g/10 min	ASTM D1238
Density	1.16	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.37	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	10	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/1.2 kg	13	cm ³ /10 min	ISO 1133
OPTICAL			
Light Transmission, 2.54 mm	85	%	ASTM D1003
Haze, 2.54 mm	4	%	ASTM D1003
INJECTION MOLDING			
Drying Temperature	65 – 75	°C	
Drying Time	3 – 5	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	245 – 265	°C	
Nozzle Temperature	245 – 265	°C	
Front - Zone 3 Temperature	245 – 265	°C	
Middle - Zone 2 Temperature	240 – 260	°C	
Rear - Zone 1 Temperature	240 – 250	°C	
Mold Temperature	45 – 60	°C	
Back Pressure	0.2 – 0.5	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.013 – 0.02	mm	

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.