

XAREC™ WA 210

Syndiotactic Polystyrene
Idemitsu Kosan Co., Ltd.

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Technical Data

Product Description

XAREC™ WA 210 is a Syndiotactic Polystyrene (SPS) product filled with 20% glass fiber. It can be processed by injection molding and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Primary characteristic: flame rated.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
UL Yellow Card ²	• E48268-519726
Search for UL Yellow Card	• Idemitsu Kosan Co., Ltd. • XAREC™
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
UL File Number	• E48268
Processing Method	• Injection Molding
Part Marking Code	• >PS-ST-GF20<

Physical	Nominal Value Unit	Test Method
Density	1.17 g/cm ³	ISO 1183
Molding Shrinkage		Internal Method
Across Flow	0.30 to 0.50 %	
Flow	0.20 to 0.40 %	
Water Absorption ⁴ (Equilibrium, 23°C, 50% RH)	0.010 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	7300 MPa	ISO 527-1
Tensile Stress (Break)	110 MPa	ISO 527-2
Tensile Strain (Break)	2.3 %	ISO 527-2
Flexural Modulus	7000 MPa	ISO 178
Flexural Stress	160 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	11 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	40 kJ/m ²	ISO 179
Notched Izod Impact Strength (23°C)	11 kJ/m ²	ISO 180
Unnotched Izod Impact Strength (23°C)	35 kJ/m ²	ISO 180

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	265 °C	ISO 75-2/B
1.8 MPa, Unannealed	235 °C	ISO 75-2/A
CLTE		TMA
Flow : -30 to 30°C	2.7E-5 cm/cm/°C	
Transverse : -30 to 30°C	5.8E-5 cm/cm/°C	
RTI Elec	110 °C	UL 746B
RTI Imp	110 °C	UL 746B
RTI Str	105 °C	UL 746B

Electrical	Nominal Value Unit	Test Method
Volume Resistivity	> 1.0E+16 ohms·cm	IEC 60093
Dielectric Strength	45 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.90	IEC 60250
Dissipation Factor (1 MHz)	9.0E-4	IEC 60250
Arc Resistance	PLC 5	ASTM D495
Comparative Tracking Index (CTI) ⁵	PLC 2	IEC 60112



Electrical	Nominal Value Unit	Test Method
High Amp Arc Ignition (HAI)		UL 746A
1.5 mm	PLC 0	
3.0 mm	PLC 0	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	UL 746A
Hot-wire Ignition (HWI)		UL 746A
1.5 mm	PLC 3	
3.0 mm	PLC 0	
Flammability	Nominal Value Unit	Test Method
Flame Rating (> 1.5 mm)	HB	UL 94
Injection	Nominal Value Unit	
Drying Temperature	120 °C	
Drying Time	3.0 to 5.0 hr	
Processing (Melt) Temp	280 to 310 °C	
Mold Temperature	130 to 155 °C	

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 A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.
- ³ Typical properties: these are not to be construed as specifications.
- ⁴ 24h
- ⁵ Solution A



Where to Buy

Supplier

Idemitsu Kosan Co., Ltd.
Tokyo, Tokyo Japan
Web: <http://www.idemitsu.com/>

Distributor

Amco Polymers

Telephone: 800-262-6685
Web: <http://www.amcopolymers.com/>
Availability: North America

AMP FRANCE

Telephone: +33-3-8920-1390
Web: <http://www.amp.fr/>
Availability: France

AMP TUNISIA

Telephone: +216-52-27-21-73
Web: <http://www.amp.fr/>
Availability: Tunisia

