



XYRON™ X444H

Asahi Kasei Corporation - Polyphenylene Ether + PS

Tuesday, February 15, 2022

General Information

Product Description

Modified PPE
40% Filler reinforced Non-Flame retardant
Stiffness High, Warpage Low

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • North America
Filler / Reinforcement	• Filler, 40% Filler by Weight
Features	• High Stiffness • Low Warpage
Processing Method	• Injection Molding
Part Marking Code (ISO11469) (ISO 11469)	• >PPE+PS-(GF+PS)40<

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.39	g/cm ³	ISO 1183
Molding Shrinkage ² (2.00 mm)	0.13 to 0.31	%	Internal Method
Water Absorption (24 hr, 23°C)	0.060	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield, 23°C)	84.0	MPa	ISO 527
Tensile Strain (Break, 23°C)	1.0	%	ISO 527
Flexural Modulus (23°C)	11700	MPa	ISO 178
Flexural Stress (23°C)	145	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³ (23°C)	6.0	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	108	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow : -30 to 65°C	2.4E-5	cm/cm/°C	
Transverse : -30 to 65°C	5.4E-5	cm/cm/°C	
Heat Deflection Temperature - (1.8MPa, Unannealed)	110	°C	ASTM D648

Disclaimer:

- Data shown are typical values obtained by proper testing methods and should not be used for specification purpose. Please use these data for selecting the most appropriate grade suitable for specific usage.

These data may be changed because of improvement in properties.

- Be sure to read the relevant SDS before handling and use, and always follow the Important Precautions.

- Do not use plastics in any of the following orally- or medically-related applications.

- Orally-related applications: any part, device or component which may come into direct oral contact or into direct contact with drinking foods or beverages.

For drinking water application, please consult Asahi Kasei Corporation.

- Medically-related applications: any part, device or component which may be used intracorporeally or which may in dialysis or other processes come into direct or indirect contact with body tissue, body fluids or transfusion fluids.

XYRON™ X444H

Asahi Kasei Corporation - Polyphenylene Ether + PS

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+16	ohms·cm	IEC 60093
Dielectric Constant			IEC 60250
100 Hz	3.40		
1 MHz	3.30		
Dissipation Factor			IEC 60250
100 Hz	7.0E-3		
1 MHz	9.0E-3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.8 mm)	HB		UL 94

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	90 to 100	°C	
Drying Time	2.0 to 4.0	hr	
Processing (Melt) Temp	250 to 300	°C	
Mold Temperature	60 to 90	°C	

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 150x150x2 mm
- ³ 4 mm

Disclaimer:

- Data shown are typical values obtained by proper testing methods and should not be used for specification purpose. Please use these data for selecting the most appropriate grade suitable for specific usage.
- These data may be changed because of improvement in properties.
- Be sure to read the relevant SDS before handling and use, and always follow the Important Precautions.
- Do not use plastics in any of the following orally- or medically-related applications.
- Orally-related applications: any part, device or component which may come into direct oral contact or into direct contact with drinking foods or beverages.
- For drinking water application, please consult Asahi Kasei Corporation.
- Medically-related applications: any part, device or component which may be used intracorporeally or which may in dialysis or other processes come into direct or indirect contact with body tissue, body fluids or transfusion fluids.