

【Inquiries】

AsahiKASEI Engineering Plastics Information Comprehensive Site

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AsahiKASEI



XYRON™ 644Z

Asahi Kasei Corporation - Polyphenylene Ether + PS

Wednesday, February 28, 2024

General Information

Product Description

Modified PPE
Unreinforced Flame retardant V-0
Heat resistance High

General

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America
Additive	• Flame Retardant	
Features AKEP website	• Flame Retardant	• Halogen Free
Processing Method	• Injection Molding	
Part Marking Code (ISO11469) (ISO 11469)	• >PPE+PS-FR(40)<	

Other Documentation

- Literature
- [Moldflow Data](#)
 - [Molding Conditions](#)
 - [SDS](#)
 - [Technical Handbook](#)

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	1.10	g/cm ³	ISO 1183
Molding Shrinkage ² (2.00 mm)	0.70 to 0.90	%	Internal Method
Water Absorption (24 hr, 23°C)	0.10	%	ISO 62
Outdoor Suitability (Black)	f1		UL 746C
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield, 23°C)	74.0	MPa	ISO 527
Nominal Tensile Strain at Break (23°C)	9.0	%	ISO 527
Flexural Modulus (23°C)	2600	MPa	ISO 178
Flexural Stress (23°C)	112	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³ (23°C)	20	kJ/m ²	ISO 179

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.

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	126	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow : -30 to 65°C	6.1E-5	cm/cm/°C	
Transverse : -30 to 65°C	7.2E-5	cm/cm/°C	
RTI Elec	125	°C	UL 746B
RTI Imp	125	°C	UL 746B
RTI Str	125	°C	UL 746B
Heat Deflection Temperature - (1.8MPa, Unannealed)	130	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Dielectric Constant			
5.20 GHz	2.70		SPDR
100 Hz	2.90		IEC 60250
Dissipation Factor			
5.20 GHz	5.0E-3		SPDR
100 Hz	4.0E-3		IEC 60250
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.0 mm	V-0		
2.0 mm	5VA		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	90 to 100	°C
Drying Time - Hot Air Dryer	2.0 to 4.0	hr
Processing (Melt) Temp	260 to 320	°C
Mold Temperature	60 to 100	°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 150x150x2 mm

³ 4 mm

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