

XANTAR™ EM 605

Mitsubishi Engineering-Plastics Corp - Polycarbonate + PET

Wednesday, September 28, 2022

General Information

Product Description

PC/PET, Chemical Resistant

General

Material Status	• Commercial: Active
Availability	• Europe
Regarding available country, please inquire via our website.	
Features	• Chemical Resistant

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.21	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/1.2 kg)	7.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (280°C/1.2 kg)	7.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	0.60 to 0.80	%	
Flow	0.60 to 0.80	%	
Water Absorption (Saturation, 23°C)	0.35	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2200	MPa	ISO 527-1/1
Tensile Stress (Yield)	55.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	> 50	%	
Flexural Modulus ²	2200	MPa	ISO 178
Flexural Stress ²	80.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	25	kJ/m ²	
23°C	55	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength			ISO 180/4A
-40°C	40	kJ/m ²	
-20°C	60	kJ/m ²	
23°C	70	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	120	°C	
Vicat Softening Temperature	130	°C	ISO 306
CLTE			ISO 11359-2
Flow	8.0E-5	cm/cm/°C	
Transverse	8.0E-5	cm/cm/°C	

¹ The values described are typical values only.

The usage examples indicated here do not guarantee results applicable to relevant uses of the products.

It is the users' responsibility to investigate industrial property rights and the terms of use related to the uses and applications indicated here.

For the handling (transport, storage, forming, disposal, etc.) of the products, it is advisable to refer to technical documents and the Safety Data Sheet (SDS) of the proper materials and grades. Please contact us for consultations when the products are used for the purpose of food containers and packaging, medical parts, safety equipment, and toys for children.

In Japan, the colored products of each grade may contain chemicals subject to reporting requirements under the applicable law provided in Appendix 9 of Article 18-2 of the Enforcement Order, under Article 57-2 of the Industrial Safety and Health Act. For details, please contact us.

For the export of our products and products incorporated with our products, please comply with the relevant laws and regulations, such as the Foreign Exchange and Foreign Trade Law.

Please note that because of the chemical substance management systems in each country, the chemicals used in our products are subject to control, and separate applications might be required or are banned from imports and exports. It is advisable to inquire about the status of regulations in the relevant countries if you are exporting or importing our products.

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Thermal	Nominal Value	Unit	Test Method
Effective Thermal Diffusivity	7.14E-8	m ² /s	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.5 mm)	HB		UL 94
Fill Analysis	Nominal Value	Unit	
Melt Density	1.08	g/cm ³	
Melt Thermal Conductivity	0.16	W/m/K	
Specific Heat Capacity of Melt	2110	J/kg/°C	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	110	°C
Drying Time - Hot Air Dryer	6.0	hr
Rear Temperature	270 to 290	°C
Middle Temperature	270 to 290	°C
Front Temperature	270 to 290	°C
Nozzle Temperature	270 to 290	°C
Mold Temperature	70 to 90	°C
Ejection Temperature	120	°C

Notes

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

² 2.0 mm/min