

# POLYCASA® PETG UV

Polyethylene Terephthalate Glycol Comonomer

Polycasa

## Message:

Polycasa PETG is the brand name for extruded Polyethyleneterephthalate Glycol (PETG) copolyester sheet from Polycasa. As a result of the extrusion process, Polycasa can offer, in addition to clear and opal versions, a variety of colours and designs to suit a wide range of requirements. Polycasa PETG meets all current food contact legislation and can be used in contact with unwrapped food. Our UV Grade is not intended for food contact and is therefore not covered by this warranty.

### CHARACTERISTICS

- Good optical properties.
- Brilliant surface.
- Easy to fabricate.
- Its biggest advantage compared to other plastics is in vacuum forming.
- Exceptional low temperature performance.
- Very good chemical resistance.
- Very high impact properties.
- Low water absorption.
- Easy to recycle.

### APPLICATIONS

- Bus shelters.
- Poster glazing.
- Machine guards.
- Medical appliance packaging.
- Displays & signs for external use.
- Refrigerators and cold storeroom equipment.
- Bicycle safety helmets.
- Food containers.
- Lenticular lenses.
- Graphic arts.
- Lighting controllers for hazardous areas.
- Motorcycle windshields.

General Information	
Features	Good Chemical Resistance
	Good UV Resistance
	High Impact Resistance
	Low Temperature Resistant
	Low to No Water Absorption
	Opticals
	Outstanding Surface Finish
Uses	Containers
	Food Containers
	Lenses
	Medical Packaging
	Protective Coverings
	Safety Equipment
	Safety Guards

## Safety Helmets

Appearance	Clear/Transparent Colors Available		
Forms	Sheet		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	1.27	g/cm <sup>3</sup>	ASTM D1505
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	105		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2200	MPa	DIN 53455
Tensile Stress	50.0	MPa	DIN 53455
Tensile Strain (Break)	54	%	DIN 53455
Flexural Modulus	2080	MPa	DIN 53452
Flexural Stress	70.0	MPa	DIN 53452
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	10	kJ/m <sup>2</sup>	DIN 53453
Charpy Unnotched Impact Strength	No Break		DIN 53453
Notched Izod Impact Strength	12	kJ/m <sup>2</sup>	ISO 180
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	82.0	°C	DIN 53460 <sup>1</sup>
CLTE - Flow	6.8E-5	cm/cm/°C	DIN 53752
Specific Heat	1100	J/kg/°C	ASTM D2766
Thermal Conductivity	0.20	W/m/K	DIN 52612
Heat Deflection Temperature	68 to 72	°C	DIN 53461
Maximum Service Temperature	70	°C	
Refractive Index	1.5700		DIN 53491
Degradation Temperature	> 280	°C	
Sheet Temperature - Forming	120 to 160	°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+16	ohms	ASTM D257
Volume Resistivity	> 1.0E+15	ohms · cm	ASTM D257
Dielectric Strength	16	kV/mm	ASTM D149
Dielectric Constant (100 Hz)	2.60		IEC 60250
Dissipation Factor (50 Hz)	0.010		IEC 60250
Optical	Nominal Value	Unit	Test Method
Transmittance	88.0	%	DIN 5036
Haze	< 1.0	%	ASTM D1003
NOTE			
1.	B (50N)		

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