RC POLYMER SOLUTIONS

PETG | RC-3000

TECHNICAL DATA SHEET

Product Description

PETG is a fully amorphous, transparent copolyester produced by copolymerizing purified terephthalic acid (PTA), ethylene glycol (EG) and 1,4-cyclohexanedimethanol (CHDM). Its transparency, colorability and gas barrier properties overcome the limitations of PET in these respects. It has promising applications in food packaging, daily-use products, cosmetic containers, photochemistry and medical fields. PETG also offers good processability without the need for plasticizers or other modifiers.

Technical Properties

Physical properties	Nominal value	Unit	Test method
Density	1.2	g/cm³	ASTM D1505
Mold shrinkage (MD)	0.2–0.5	%	ASTM D955
Water absorption	0.16	%	ASTM D570
Mechanical properties	**Nominal value**	**Unit**	**Test method**
Rockwell hardness (R scale)	110	R scale	ASTM D785
Tensile strength at break	45	MPa	ASTM D638
Tensile strength at yield	45	MPa	ASTM D638
Elongation at break	150	%	ASTM D638
Flexural modulus	2000	MPa	ASTM D790
Flexural strength	70	MPa	ASTM D790
Impact properties	**Nominal value**	**Unit**	**Test method**
Notched Izod impact strength, 23°C	90	J/m	ASTM D256
Thermal properties	**Nominal value**	**Unit**	**Test method**
Heat deflection temperature, 1.8 MPa	62	°C	ASTM D648
Heat deflection temperature, 0.45 MPa	72	°C	ASTM D648
Vicat softening temperature	76	°C	ASTM D1525 4
Optical properties	**Nominal value**	**Unit**	**Test method**
Light transmittance	90	%	ASTM D1003
Haze	<1.5	%	ASTM D1003

Note: Test method notation for Vicat softening temperature is reproduced as stated in the original data sheet.