RC POLYMER SOLUTIONS

PCTG | RC-4000

TECHNICAL DATA SHEET

Product Description

RC-4000 is an amorphous copolyester with excellent appearance and transparency, produced by copolymerizing purified terephthalic acid (PTA), ethylene glycol (EG) and 1,4-cyclohexanedimethanol (CHDM). It offers good viscosity, transparency, color, chemical resistance and resistance to stress whitening. Finished products exhibit high transparency and excellent impact resistance.

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	0.14	%	ASTM D570
Mechanical properties	**Nominal value**	**Unit**	**Test method**
Rockwell hardness (R scale)	118	R scale	ASTM D785
Tensile strength at break	45	MPa	ASTM D638
Tensile strength at yield	45	MPa	ASTM D638
Elongation at break	200	%	ASTM D638
Flexural modulus	1800	MPa	ASTM D790
Flexural strength	70	MPa	ASTM D790
Impact properties	**Nominal value**	**Unit**	**Test method**
Notched Izod impact strength, 23°C	1500	J/m	ASTM D256
Thermal properties	**Nominal value**	**Unit**	**Test method**
Heat deflection temperature, 1.8 MPa	68	°C	ASTM D648
Heat deflection temperature, 0.45 MPa	78	°C	ASTM D648
Vicat softening temperature	82	°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.