

LIGHTER C and S PET resins



Mechanical and Thermal Properties

LIGHTER™ C and S resins are polyethylene terephthalate polymers produced from PTA and MEG as the major building blocks. While these polymers have been specifically designed for the production of beverage, food and other liquid containers, they are also perfectly suitable for thermoforming applications.

Typical results of measurements on **amorphous** test specimens of the most important mechanical and thermal properties are shown in the table below. Measurements were carried out on specimens made from the entire set of LIGHTER C and S grades: however, as the experimental values for the different grades were not significantly different, only an average value is reported.

TYPICAL VALUES	Unit	Method	LIGHTER C and S resins
Tensile strength at yield	MPa	ISO EN 527	55
Tensile strength at break	MPa	ISO EN 527	24
Yield strain	%	ISO EN 527	4
Strain at break	%	ISO EN 527	250
Tensile modulus	MPa	ISO EN 527	2300
Flexural modulus	MPa	ISO EN 178	2100
Izod impact resistance (with notch)	23°C kJ/m ²	ISO EN 180	4.5
Vicat softening temperature	B/50 °C	ISO EN 306	77
Coefficient of linear thermal expansion	1/°K	ISO 113592-2	83*10 ⁻⁶

Note: injection molding process conditions for preparation of test specimens: melt temperature 277°C, mold temperature 20°C, injection velocity 200 mm/sec, hold pressure 5.52 MPa

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See "Handling Considerations" on the specific product technical Data Sheet