

TDS / POLYPROPYLENE

Technical Data Sheet

Polypropylene material properties and corrugated-sheet reference data.

01 / Physical properties

Property	Method	Unit	Value
Density	ISO 1183	g/cm ³	0.907
Water absorption	ISO 62	%	0.02

02 / Thermal properties

Property	Method	Unit	Value
Linear thermal expansion coefficient	ASTM D696	mm/(m·°C)	0.18
Specific heat capacity	DSC	J/(g·°C)	1.68
Heat deflection temperature - entry 1	ISO 75	°C	78
Heat deflection temperature - entry 2	ISO 75	°C	52
Vicat softening temperature - entry 1	ISO 306	°C	148
Vicat softening temperature - entry 2	ISO 306	°C	78

03 / Mechanical properties of PP

Property	Method	Unit	Value
Tensile strength	ISO 527	MPa	38
Elongation at break	ISO 527	%	800
Flexural modulus	ISO 178	MPa	1,250
Impact strength	ISO 180	kJ/m ²	80
Shore hardness (scale not specified)	ISO 868	-	66

Test conditions for the paired ISO 75 / ISO 306 entries, the impact specimen and the Shore scale are not specified in the source.

TDS / CORRUGATED SHEETS

Sheet performance data

Values below are retained from the supplied technical table. Decimal and unit notation has been standardised.

04 / Sheet mechanical data

Sheet specification	Unit	Minimum reported value
2.1 mm / 350 g/m ²	N/cm ²	3.7
2.0 mm / 400 g/m ²	N/cm ²	1.4
3.0 mm / 650 g/m ²	N/cm ²	5.5
4.5 mm / 1,000 g/m ²	N/cm ²	14.4

The source labels this property “comparison of maximum tension”; the test mode and test method are not specified.

05 / Optical properties

Sheet specification	Property	Value
2.0 mm / 400 g/m ²	Light transmission	58%
2.5 mm / 450 g/m ²	Light transmission	53%
3.0 mm / 500 g/m ²	Light transmission	51%
4.0 mm / 1,000 g/m ²	Light transmission	37%

06 / Electrical properties

Property	Method	Unit	Value
Surface resistance	ASTM D257	Ω	Approx. 10 ¹³
Dielectric constant at 1 MHz	ASTM D150	-	2.25
Dissipation factor, tan δ, at 1 MHz	ASTM D150	-	< 5 × 10 ⁻⁴
Dielectric strength (500 V/s)	ASTM D149	kV/mm	70

Reference values are not a product acceptance specification. Confirm the relevant grade, thickness, sheet weight and test conditions with Röplast: info@ozer.com.