

TECHNICAL DATA SHEET

PET & PET-GL

Properties	Standard	Unit	PET	PET GL
Mechanical properties				
Density	DIN 53 479	g/cm ³	1,38	1,43
Tensile strength (short duration)	DIN 53 455	MPa	80	75
Modulus of elasticity in flexure (short duration)	DIN 53 457	MPa	2.6	-
Modulus of elasticity in tension (short duration)	DIN 53 457	MPa	3	2.2
Bending strength	DIN 53 452	MPa	125	-
Impact strength	DIN 53 453	kJ/m ²	n. B.	30
Notch impact strength	DIN 53 453	kJ/m ²	>4	2
Ball indention hardness	DIN 53 456	MPa	140	-
H358/30				
Sliding friction coefficient (dry run) 1)	-	-	0,25	0,2
Thermal properties				
Melting temperature	-	°C	255	255
Coefficient of linear expansion 2)	DIN VDE 0304	10 ⁻⁵ . K ⁻¹	7-Aug	7-Aug
Service temperature range 3)		°C	-20 to +110	-20 to +110
Max.Service temperature range 4)	-	°C	160	160
Thermal conductivity	DIN 52 612	W/(K.m)	0,24	0,23
Moisture absorption 5) (maximum)	DIN 53 715	%	0,25	0,2
Moisture absorption 6) (saturated)	DIN 53 495	%	0,5	0,4

1) Against steel, hardened and ground P = 0.05 Mpa ; V = 0.6 m/sec ; t = 40 °C near sliding surface

2) For the temperature range from + 23°C to + 60°C

3) Empirical values with finished components without load in air, depending on type and form of heat application, long term (= months)

4) Empirical values with finished components without load in air, depending on type and form of heat application, short term (= max. 1h)

5) In normal ambient conditions 23 °C / 50 % RH

6) In water 1 MPa = 1 N/mm²; n. b. = non breaking

Applications:

- Ratchet wheels
- Bushes
- Gear wheels
- Sling Elements
- Insulators and Casting Parts

- Counter components
- Precision bearings
- Cam disks

Options:

SHEET & SLAB: Natural & Black Carbon filled, Size: 2000 mm x 1000 mm, Thickness: 2 mm to 100 mm

ROLLS: Natural, Width: 1000 mm, Thickness: 0.25 mm to 1.5 mm

ROD & TUBE: Extruded Natural & Black Carbon filled, Lengths: 1000 mm & 3000 mm, Diameters: 5 mm to 45 mm

CAST: Natural & Black Carbon filled, Lengths: 1000 mm & 3000 mm, Diameters: 50 mm to 300 mm

Disclaimer:

All statements, technical information and recommendations contained in this publication are for informational purposes only. Cut To Size Plastics Pty. Ltd. does not guarantee the accuracy or completeness of any information contained herein and it is the customer's responsibility to conduct its own review and make its own determination regarding the suitability of specific products for any given application.