

DMR Material PET-WD87

Polyethylene terephthalate Thermoplastic Polyester (PET)



MATERIAL DATA SHEET (Version 5.0 – 05.2019)

Description

DMR material PET-WD87 is a crystalline unreinforced engineering thermoplastic polyester (PET) which has high mechanical strength, good sliding properties, excellent rigidity and wear resistance and is commonly referred to as Ertalylte® or PET.

PET-WD87 has low moisture absorption and is a good alternative to Polyacetal materials when parts require a high level of precision, improved wear resistance and the capability to sustain high loads.

Due to its FDA and EU10/2011 compliance, this material is a good choice for machined parts such as rollers, bearing bushes or wear rings in food industry applications.

Physical Properties

Property	Test method	Unit	Typical value
Colour			White/Opaque
Shore hardness	Shore D	DIN ISO 53505	87
Tensile strength	ISO 527-2	Mpa	79
Modulus of elasticity	ISO 527-2	MPa	3100
Elongation at break	ISO 527-2	%	10
Moisture Absorption (23°C / 96 hrs)	ISO 62	%	0.03
Density	ISO 1183-1	g/cm ³	1.36
Surface resistivity	IEC 60093	Ohm	10 ¹⁴
Volume resistivity	IEC 60093	Ohm cm	10 ¹⁴
Melting Point	ISO 11357	°C	244
Coefficient Of Linear Thermal Expansion	*	10 ⁻⁵ K ⁻¹	8
Service temperature (Long term)		°C	-20 to +110
Service temperature (short term - max)		°C	+170

* (Average between +23 to +60°C)

Ertalylte® is a registered trademark of Quadrant AG.

Main Characteristics

- High mechanical strength
- Good dimensional stability
- Low moisture uptake
- Good wear and sliding properties
- Good electrical insulating properties

Typical products

- Anti-Extrusion / Back-up Rings
- Rollers
- Bearing rings / guide rings
- Bushes
- Bespoke parts

Typical Applications

Due to its good dimensional stability and low moisture uptake, PET-WD87 is an excellent material choice for rollers, guide rings, bearing rings, bearing bushes, thrust washers and back-up rings commonly used in the sealing industry.

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