DSM 3.9.3
Polyester (PET)_Extruded
Natural

General:

Polyester (PET) The most common thermoplastic polyester variant is synthesized by the reaction of an organic acid with alcohol (**E**thylene glycol) the thermal properties can be controlled to provide both semi–crystalline & amorphous thermoplastic.

The semi-crystalline state is achieved with slow cooling of PET during processing & by the addition of fillers .Once successfully crystallized, this version provides for better mechanical properties, including strength, stiffness, and performance at elevated temperature than the PBT equivalent.

Benefits:

- Lower water absorption & dimensional stability compared to Nylon
- Excellent electrical properties.
- Excellent resistance to chemical attack and high environmental stress crack resistance, compared to polycarbonates,
- Very low creep, even at elevated temperatures.
- Good wear & sliding properties
- Good machining, adhering & welding properties.

Limitations:

- Not suitable for hot water service
- Lowest flammability rating UL94. HB
- Attacked by alkalis & strong bases.

ASM (DEK) Applications:

- Bearings and gears

Profiles:

- Plate:
- Rod:
- Tube

These values are representative. For critical applications, refer to data-sheet.

MECHANICAL PROPERTIES					
MATERIAL DETAILS	TENSILE STRENGTH:	YOUNGS MODULUS:	POISSONS RATIO:	DENSITY:	UL No:
PET	**90** MPa	**2.4** GPa	**0.37**	**1380**Kg/m^3	**----**

Alternatives:

Alternative polymers are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

Issue	01	02	03	04	05	06	07	08	09
DCR	40230	44832							