AGIPLAST
COMPOUNDING FOR TOMORROW

TECHNICAL DATASHEET

Agiflex® 300 N063

Product information

Agiflex®
PEBA

The Agiflex trademark represents the PEBA range manufactured by Agiplast which has a broad range of applications in key markets such as industrial vehicles, sports & leisure, medical and industrial.

- Easy processability
- Very good mechanical properties
  - High tensile strength
  - High elasticity return & elastic properties
  - High flexibility fatigue resistance
  - High cold resistance
- Remarkable physical properties
  - Very low density
  - High moisture resistance
- High electric properties
- Very good chemical resistance
- High aging resistance

TRADEMARK	POLYMER		FLUIDITY		ADDITIVES		COLOUR		FLEXIBILITY		ADDITIVES	
Agiflex	3	PEBA	0	High fluidity	0	Any	N	Natural	063	Shore D	/	Any

Agiflex 300 N063 is a polyether block amide used to replace common elastomers thanks to its technical features. The main application are sports shoes, sport rackets and tubes for transportation industry thanks to the very low density and high elasticity return.

MAIN MARKETS

INDUSTRIAL

SPORTS & LEISURE

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Product properties

PROPERTY	TEST METHOD	VALUE
PHYSICAL PROPERTIES		
MELTING POINT	ISO 11357-1/-3	169 °C
DENSITY (23 °C)	ISO 1183	1,03 g/cm3
WATER ABSORPTION (23 °C) • with 50% of relative humidity • with 100% of relative humidity	Similar to ISO 62	 0,70% 1,10%
THERMAL PROPERTIES		
HEAT DISTORSION TEMPERATURE (HDT) • 1,85 MPa • 0,45 MPa	 ISO 75 Method A ISO 75 Method B	 - -
FLAME RESISTANCE Thickness test piece • 3,2 mm • 1,6 mm	UL 94	 HB HB
HARDNESS SHORE D • Hardness shore D (instantaneous) • Hardness shore D (after 15s)	ISO 868	 61 55
ELECTRICAL PROPERTIES		
VOLUME RESISTIVITY	ASTDM D 257	10^{11} Ω.cm
DIELECTRIC STRENGHT (dry state)	ASTDM D 149	39 kV/mm
MECHANICAL PROPERTIES		
• Tensile modulus • Flexural modulus • Break strength • Break elongation	 ISO 178 ISO R 527	450 MPa 440 MPa 38 MPa > 300 %
CHARPY IMPACT STRENGTH • Unnotched at +30 °C • Unnotched at -40 °C	ISO 179	 No break No break

The data given are based on our present knowledge and experience. They are published without obligation on our part and any liability will be assumed.

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Processing information

MACHINE		
GENERAL	All extrusion and injection machines suitable for PEBA can run the 300 N063.	
SCREW TYPES	Screws with three zones (feeding, compression and metering zones) are recommended. Length: 18 D - 22 D Compression ratio: 2.2 – 2.8	
MATERIAL		
STORAGE	300 N063 has to be stored in dry, indoor and safe facilities. It is highly recommended to run granules having reached the workshop temperature to prevent from moisture condensing on cold granules.	
DRYING	300 N063 is dried and packed with a moisture content of less than 0.10 %. If the packing has been damaged or left open for a long time (> 2 hours), then the material has to be dried. Polyamides are sensitive to oxidation at temperatures > 80°C in the oxygen atmosphere. To avoid yellowing of the granules (for natural color grades only), it is recommended to respect the following settings.	
DRYING SETTINGS	AIR DRYER Temperature: max. 80°C Time: 4 - 10 hours	VACUUM DRYER Temperature: max. 80°C Time: 2 - 4 hours
PROCESS (recommended basic settings)		
EXTRUSION SETTINGS	Hopper zone 60 - 90°C Feeding zone 190 - 210°C Compression zone 210 - 230°C Metering zone 210 - 230°C Nozzle 200 - 210°C	
COOLING BATH	15 - 40°C	
INJECTION MOULDING SETTINGS	Mould temperature 15 – 40°C Screw speed 3 – 12 m/min Melt 230°C	

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