

TECHNICAL DATASHEET

Agiflex[®] 300 B063

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	B Black	063 Shore D	/ Any

Agiflex 300 B063 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

Product properties

PROPERTY	TEST METHOD	VALUE
PHYSICAL PROPERTIES		
MELTING POINT	ISO 11357-1/-3	169 °C
DENSITY (23 °C)	ISO 1183	1,03 g/cm ³
WATER ABSORPTION (23 °C)	Similar to ISO 62	0,70%
<ul style="list-style-type: none"> with 50% of relative humidity with 100% of relative humidity 		1,10%
THERMAL PROPERTIES		
HEAT DISTORSION TEMPERATURE (HDT)	ISO 75 Method A ISO 75 Method B	-
<ul style="list-style-type: none"> 1,85 MPa 0,45 MPa 		-
FLAME RESISTANCE	UL 94	
Thickness test piece		
<ul style="list-style-type: none"> 3,2 mm 1,6 mm 		HB HB
HARDNESS SHORE D	ISO 868	61
<ul style="list-style-type: none"> Hardness shore D (instantaneous) Hardness shore D (after 15s) 		55
ELECTRICAL PROPERTIES		
VOLUME RESISTIVITY	ASTDM D 257	10 ¹¹ Ω.cm
DIELECTRIC STRENGTH (dry state)	ASTDM D 149	39 kV/mm
MECHANICAL PROPERTIES		
<ul style="list-style-type: none"> Tensile modulus Flexural modulus Break strength Break elongation 	ISO 178 ISO R 527	440 MPa 420 MPa 38 MPa > 300 %
CHARPY IMPACT STRENGTH	ISO 179	No break
<ul style="list-style-type: none"> Unnotched at +30 °C Unnotched at -40 °C 		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.



AGIPLAST
COMPOUNDING FOR TOMORROW

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Processing information

MACHINE							
GENERAL	All extrusion and injection machines suitable for PEBA can run the 300 B063.						
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 B063 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 B063 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	<table border="1"><thead><tr><th>AIR DRYER</th><th>VACUUM DRYER</th></tr></thead><tbody><tr><td>Temperature: max. 80°C</td><td>Temperature: max. 80°C</td></tr><tr><td>Time: 4 - 10 hours</td><td>Time: 2 - 4 hours</td></tr></tbody></table>	AIR DRYER	VACUUM DRYER	Temperature: max. 80°C	Temperature: max. 80°C	Time: 4 - 10 hours	Time: 2 - 4 hours
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Temperature: max. 80°C	Temperature: max. 80°C						
Time: 4 - 10 hours	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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