

TECHNICAL DATASHEET

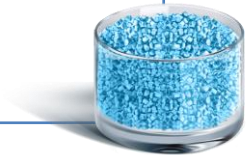
Agimid® 240 N120

Product information

Agimid®
POLYAMIDE 12

The Agimid range holds 3 long-chain polymers including 2 bio-based materials which have a broad range of applications in key markets such as automotive & industrial vehicles, sports & leisure, electrical & electronics and industrial.

- Easy processability
- Very good mechanical properties
 - High abrasion resistance
 - Stable modulus with moist environment
- Remarkable physical resistance
 - Lightest engineering polymers
 - Low water absorption
- Very good chemical resistance
- High aging resistance
- Wide range of temperature use



TRADEMARK	POLYMER		FLUIDITY		ADDITIVES		COLOUR		FLEXIBILITY		ADDITIVES	
Agimid	2	PA12	4	High viscosity	0	Any	N	Natural	120	Highly flexible	/	Any

Agimid 240 N120 is a plasticized, heat and light stabilized and impact modified product for extrusion. The main application is pneumatic tubes for industrial and automotive markets.

MAIN MARKETS



AUTOMOTIVE



INDUSTRIAL



ELECTRICAL & ELECTRONICS

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Agimid[®] 240 N120

Product properties

PROPERTY	TEST METHOD	VALUE
PHYSICAL PROPERTIES		
MELTING POINT	ISO 11357-1/-3	173 °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 		1,40%
THERMAL PROPERTIES		
HEAT DEFLECTION TEMPERATURE (HDT)	ISO 75 Method A	45 °C
<ul style="list-style-type: none"> 1,85 MPa 0,45 MPa 	ISO 75 Method B	95 °C
FLAME RESISTANCE	UL 94	HB
Thickness test piece		
<ul style="list-style-type: none"> 3,2 mm 1,6 mm 		
ELECTRICAL PROPERTIES		
VOLUME RESISTIVITY	ASTM D 257	10 ¹⁴ Ω.cm
SURFACE RESISTIVITY	ASTM D 257	10 ¹⁴ Ω
DIELECTRIC STRENGTH (dry state)	ASTM D 149	24 kV/mm
MECHANICAL PROPERTIES		
TENSILE MODULUS	ISO 527	420 MPa
<ul style="list-style-type: none"> Break strength Break elongation 		39 MPa
		>100 %
CHARPY IMPACT STRENGTH	ISO 179	No break
<ul style="list-style-type: none"> Unnotched at +23 °C Unnotched at -30 °C 		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 extruders suitable for polyamides can run the 240 N120						
SCREW TYPES	Screws with three zones (feeding, compression and metering zones) are recommended Length: 18 D - 22 D						
MATERIAL							
STORAGE	240 N120 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	240 N120 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.						
DRYING SETTINGS	<table border="1"> <tr> <td>AIR DRYER</td> <td>VACUUM DRYER</td> </tr> <tr> <td>Temperature: max. 80°C</td> <td>Temperature: max. 80°C</td> </tr> <tr> <td>Time: 4 - 8 hours</td> <td>Time: 2 - 4 hours</td> </tr> </table>	AIR DRYER	VACUUM DRYER	Temperature: max. 80°C	Temperature: max. 80°C	Time: 4 - 8 hours	Time: 2 - 4 hours
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Temperature: max. 80°C	Temperature: max. 80°C						
Time: 4 - 8 hours	Time: 2 - 4 hours						
LUBRICATION	240 N120 includes internal lubricants. However, the use of Zinc Stearate or Calcium Stearate can be helpful in case of process instability						
PROCESS (recommended basic settings)							
BASIC MACHINE SETTINGS	Hopper zone 60 - 90°C Feeding zone 200 - 225°C Compression zone 210 - 240°C Metering zone 210 - 240°C Head 200 - 230°C Melt 205 - 235°C						
COOLING BATH	15 - 30°C						

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