



**AGIPLAST**  
COMPOUNDING FOR TOMORROW

# TECHNICAL DATASHEET

## Agimid<sup>®</sup> 141 B120-S

### Product information

# Agimid<sup>®</sup>

## POLYAMIDE 11

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
  - High friction 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	1	PA11	4	High viscosity	1	Impact Modifier	B	Black	120	Flexible	-S	Processing Aid

**Agimid 141 B120-S** is a plasticized, heat and light stabilized product with processing aid for extrusion. The main application is pneumatic tubes thanks to combination of cold impact, burst pressure and high aging resistances.

### MAIN MARKETS



AUTOMOTIVE



INDUSTRIAL



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### Product properties

PROPERTY	TEST METHOD	VALUE
<b>PHYSICAL PROPERTIES</b>		
MELTING POINT	ISO 11357-1/-3	183 °C
DENSITY (23 °C)	ISO 1183	1,04 g/cm <sup>3</sup>
WATER ABSORPTION (23 °C) <ul style="list-style-type: none"><li>with 50% of relative humidity</li><li>with 100% of relative humidity</li></ul>	Similar to ISO 62	1,00% 1,60%
<b>THERMAL PROPERTIES</b>		
HEAT DEFLECTION TEMPERATURE (HDT) <ul style="list-style-type: none"><li>1,85 MPa</li><li>0,45 MPa</li></ul>	ISO 75 Method A ISO 75 Method B	45 °C 125 °C
FLAME RESISTANCE Thickness test piece <ul style="list-style-type: none"><li>3,2 mm</li><li>1,6 mm</li></ul>	UL 94	HB HB
<b>ELECTRICAL PROPERTIES</b>		
VOLUME RESISTIVITY	ASTDM D 257	10 <sup>14</sup> Ω.cm
SURFACE RESISTIVITY	ASTDM D 257	10 <sup>14</sup> Ω
DIELECTRIC STRENGTH (dry state)	ASTDM D 149	23 kV/mm
<b>MECHANICAL PROPERTIES</b>		
TENSILE MODULUS <ul style="list-style-type: none"><li>Break strength</li><li>Break elongation</li></ul>	ISO 527	370 MPa 36 MPa >100%
CHARPY IMPACT STRENGTH <ul style="list-style-type: none"><li>Unnotched at +23 °C</li><li>Unnotched at -30 °C</li></ul>	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 extruders suitable for polyamides can run the 141 B120-S		
SCREW TYPES	Screws with three zones (feeding, compression and metering zones) are recommended Length: 22 D - 28 D (25 D is optimal) Compression ratio: 2.5 - 3.1		
MATERIAL			
STORAGE	141 B120-S 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	141 B120-S 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 Temperature: max. 80°C Time: 4 - 8 hours</td><td>VACUUM DRYER Temperature: max. 90°C Time: 2 - 4 hours</td></tr></table>	AIR DRYER Temperature: max. 80°C Time: 4 - 8 hours	VACUUM DRYER Temperature: max. 90°C Time: 2 - 4 hours
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PROCESS (recommended basic settings)			
BASIC MACHINE SETTINGS	Hopper zone 60 - 90°C Feeding zone 210 - 235°C Compression zone 220 - 250°C Metering zone 220 - 250°C Head 210 - 240°C Melt 205 - 240°C		
COOLING BATH	15 - 30°C		

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