ARKEMA

TECHNICAL DATASHEET

Agimid® 141 N120-S

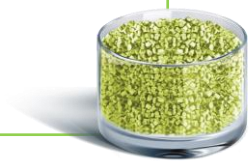
Product information

Agimid®

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	N	Natural	120	Flexible	-S	Processing Aid

Agimid 141 N120-S is a plasticized, heat and light stabilized product with processing aid for extrusion.

MAIN MARKETS

AUTOMOTIVE

INDUSTRIAL

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www.agiplast-compounding.com

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Product properties

PROPERTY	TEST METHOD	VALUE
PHYSICAL PROPERTIES		
MELTING POINT	ISO 11357-1/-3	183 °C
DENSITY (23 °C)	ISO 1183	1,04 g/cm3
WATER ABSORPTION (23 °C) • with 50% of relative humidity • with 100% of relative humidity	Similar to ISO 62	 1,00% 1,60%
THERMAL PROPERTIES		
HEAT DEFLECTION TEMPERATURE (HDT) • 1,85 MPa • 0,45 MPa	 ISO 75 Method A ISO 75 Method B	 45 °C 125 °C
FLAME RESISTANCE Thickness test piece • 3,2 mm • 1,6 mm	UL 94	 HB HB
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	23 kV/mm
MECHANICAL PROPERTIES		
TENSILE MODULUS • Break strength • Break elongation	ISO 527	370 MPa 36 MPa >100%
CHARPY IMPACT STRENGTH • Unnotched at +23 °C • Unnotched at -30 °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 extruders suitable for polyamides can run the 141 N120-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 N120-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 N120-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	AIR DRYER Temperature: max. 80°C Time: 4 - 8 hours	VACUUM DRYER Temperature: max. 90°C Time: 2 - 4 hours
LUBRICATION	141 N120-S 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 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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