



# elemelt®

## Elemelt PA510

### POLYAMIDE HOT MELT RESIN

#### KEY BENEFITS

- Enhanced UV resistance versus standard PA
- High hardness and cohesion
- Flammability UL94 : V0  
(UL file E116659)

#### DESCRIPTION

Elemelt PA510 is a pure copolymer polyamide hot melt resin, non reactive and solvent free, specially designed for Low Pressure Molding applications.

#### APPLICATIONS

Elemelt PA510 is mainly used for molding of electronic/electric components, connectors and cables.

#### SPECIFICATIONS

PHYSICAL PROPERTIES	VALUE	STANDARD TEST
Viscosity Brookfield (220°C, SC4, 50 RPM)	[Pa.s] 4.0-6.0	ASTM D3236
Softening point	[°C] 175-185	ASTM D3461
Water Content	[%] < 0.2	
Commercial shape	Pellets	
Packaging	20Kg bag	

#### INDICATIVE VALUE

THERMAL PROPERTIES	VALUE	STANDARD TEST
Vicat temperature (A 120)	[°C] 77	ISO306
Glass transition (DSC)	[°C] - 35	
MECHANICAL PROPERTIES	VALUE	STANDARD TEST
Yield strength (50 mm/min, 23°C)	[MPa] 7.2	ISO 527
Strength at break (50 mm/min, 23°C)	[MPa] 8.1	ISO 527
Elongation at break (50 mm/min, 23°C)	[%] 340	ISO 527
Young modulus (50 mm/min, 23°C)	[MPa] 90	ISO 527

#### INDICATIVE VALUE

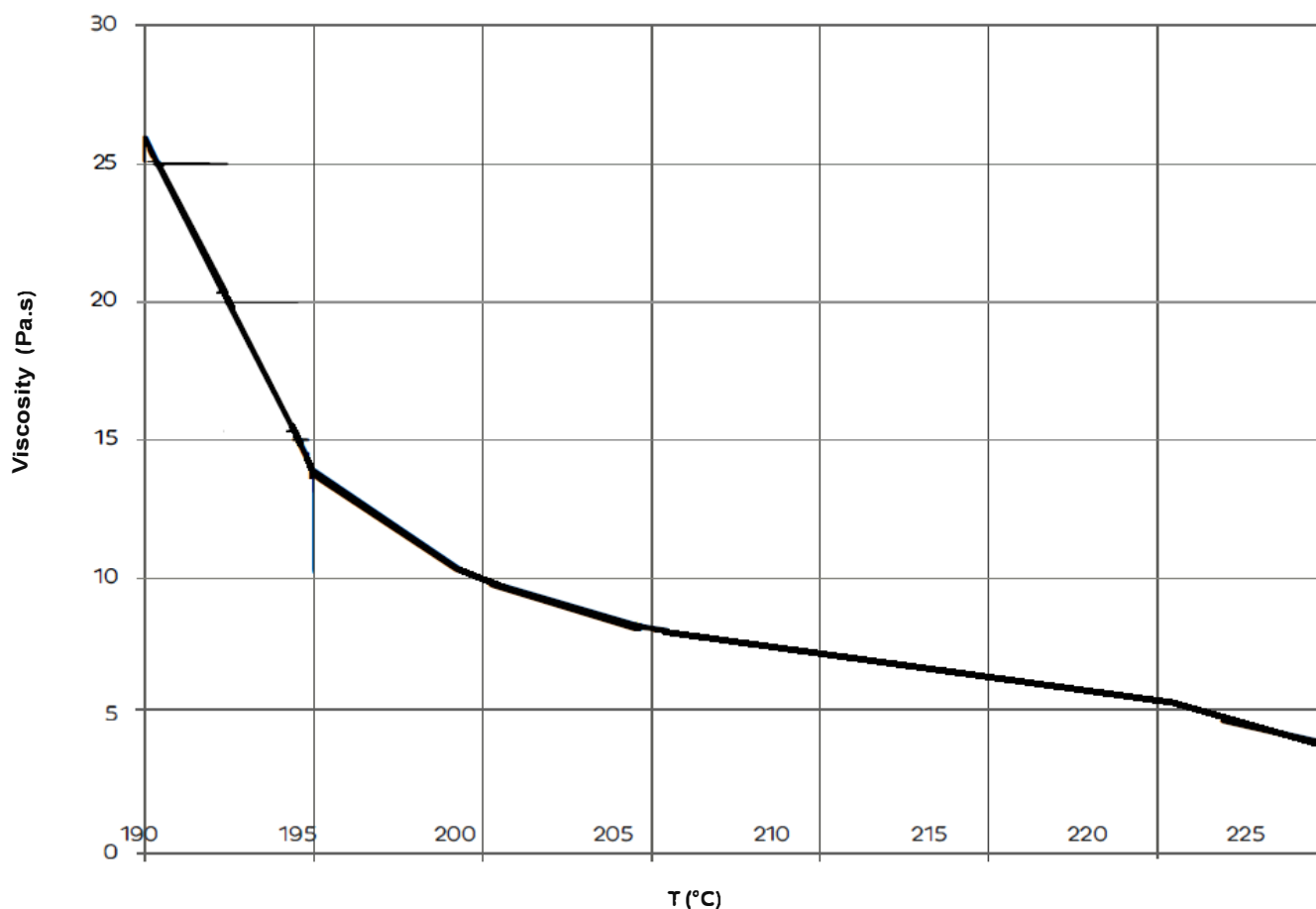
MISCELLANEOUS PROPERTIES	VALUE	STANDARD TEST
Density	~1	Internal test
Water absorption (immersed, 23°C)	[%] 1,9	ISO 62
Hardness (23°C)	[Shore D] 49	ISO 868
ELECTRICAL PROPERTIES	VALUE	STANDARD TEST
Transversal resistivity (500V)	[Ω.cm] 1,4.10 <sup>11</sup>	IEC 60093
Dielectric rigidity (23°C)	[kV.mm <sup>-1</sup> ] 20	IEC 60243-1
Relative permittivity (50Hz, 23°C)	[F.m <sup>-1</sup> ] 5.6	IEC 60250

#### PROCESSING CONDITIONS

RECOMMENDED PARAMETERS	VALUE
Melt Temperature Range	[°C] 210-230
Mold Temperature Range	[°C] 20-60
Drying Time (Air oven, thin layer)	[h] 8
Drying Temperature	[°C] 70
Processing Moisture Content	[%] < 0.2

Elemelt PA510 can be used in both melter and extruder.

Viscosity curve versus temperature



#### STORAGE STABILITY

The product has a shelf life of 18 months when properly stored in a cool and dry location in closed original packing.

Elemelt PA510 will absorb moisture from the air.

Because of risk of moisture absorption, we highly recommend to store any open bag in a close container.

#### REGULATION

No substance mentioned in the candidate list of SVHC for authorization published by the European Chemical Agency (16/12/2013), is present at a concentration higher than 0.1% (w/w).

We certify that our products comply with the European directive 2011/65/EU, also called the RoHS directive.

We don't introduce intentionally phthalate derivatives or Phosphorus Elemental (CAS 7723-14-0) in the manufacturing of our Polyamide adhesives.

The information given and recommendations made herein are based on the manufactures research only and are not guaranteed to be accurate. The performance of the product, its shelf life, and application characteristics will depend on many variables, including the kind of materials to which the product will be applied, the environment in which the product is stored or applied, and the equipment used for application. Any change in any of these variables can affect the product's performance. It is the buyer's obligation, prior to using the product, to test the suitability of the product for an intended use under the conditions that will exist at the time of the intended use. The manufacture does not warrant the product's suitability for any particular application. The product is sold pursuant to the manufactures Terms and Conditions of Sale that accompanies the product at the time of sale. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute permission, inducement, or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.