

## TECHNICAL DATA SHEET

# ORGALLOY® LE 60 THM NAT

## POLYAMIDE ALLOY PELLET

ORGALLOY® LE 60 THM NAT is a polyamide alloy. This natural grade is designed for tube & profile extrusion and offers excellent barrier properties and chemical resistance to hydrocarbons, alcohols and solvents while exhibiting a good cold impact performance and abrasion resistance.

### DESIGNATION

PA\*

### MAIN APPLICATIONS

- Downstream - Gas Station Piping
- Cable
- Belting
- Industry - Distribution
- Auto - Gasoline Lines
- Auto - Air Conditioning Circuit

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

- Calendering
- Extrusion - General
- Sheet Extrusion
- Thermoforming
- Tube Extrusion

### ADDITIVES

- Heat Stabilized
- Light Stabilized

## RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	3.8 cm <sup>3</sup> /10min	ISO 1133

## MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore D, 15 s	- / 68	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	No Break / No Break	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	23 / 26 kJ/m <sup>2</sup>	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	12 / 12 kJ/m <sup>2</sup>	ISO 179 1eA
Nominal strain at break, 23°C (73°F), 50 mm/min	> 50 / > 50 %	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	4 / 5 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	49 / 42 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	2000 / 1800 MPa	ISO 527-1/-2

\*DRY: Dry As Molded (DAM) if pellet / Dry if powder.  
COND: Conditioned.

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## THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	131 °C	ISO 306
Heat deflection temperature, 0.45 MPa	86 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	48 °C	ISO 75-1/-2
Melting temperature, 10°C/min	220 °C	ISO 11357-1/-3

## ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / >1E15 ohm/sq	IEC 62631-3-2
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112

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COND: Conditionned.

## OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	2.4 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	6.5 %	ISO 62
Specific gravity, 23°C (73°F)	1.05 g/cm <sup>3</sup>	ISO 1183-1

## PACKAGING

This grade is delivered dried in sealed packaging ready to be processed. Available packaging:

- 25 kg / 55 lb bags

## SHELF LIFE

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

## PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 250°C / 270°C / 290°C (480°F / 520°F / 555°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

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