

TECHNICAL DATA SHEET

ORGALLOY® LT 5050 T6L NAT

POLYAMIDE ALLOY PELLET

ORGALLOY® LT 5050 T6L NAT is a polyamide alloy. This natural flexible grade is designed for extrusion to produce refrigerant barrier layer in automotive & non automotive air conditioning rubber hose.

DESIGNATION

PA*

MAIN APPLICATIONS

- Outdoor - Equipment/Bicycle/Racket
- Other Sport Equipment
- Upstream - Offshore Flexible Pipes
- Hoses & Tubes
- Industry - Distribution
- Auto - Air Conditioning Circuit
- Heavy Truck H2 & Gas Lines And Tanks

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 / 5 kg (455°F / 11 lb)	1.8 cm ³ /10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore D, 15 s	- / 55	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)	76 / 82 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	28 / 30 kJ/m ²	ISO 179 1eA
Nominal strain at break, 23°C (73°F), 50 mm/min	> 50 / > 50 %	ISO 527-1/-2
Stress at 50% strain, 23°C (73°F), 50 mm/min	26 / 21 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 470 MPa	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 330 MPa	ISO 178

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

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	75 °C	ISO 306
Melting temperature, 10°C/min	220 °C	ISO 11357-1/-3

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ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / >1E15 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 7.4E+11 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 36	IEC 60243-1
Relative permittivity, 100Hz	- / 4	IEC 60250
Relative permittivity, 1Mhz	- / 4	IEC 60250
Dissipation factor, 100Hz	- / 1100	IEC 60250
Dissipation factor, 1Mhz	- / 1100	IEC 60250

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

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	2 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	5.6 %	ISO 62
Specific gravity, 23°C (73°F)	1.04 g/cm ³	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

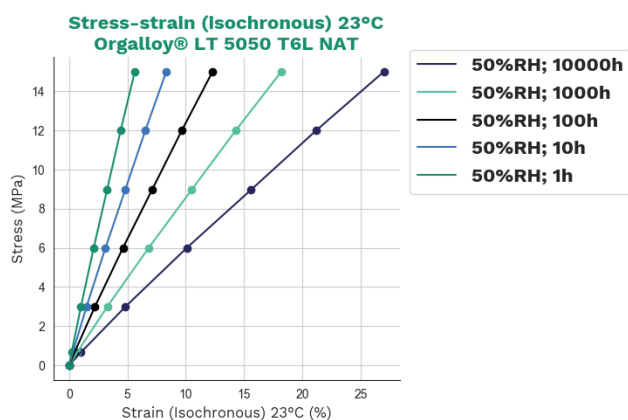
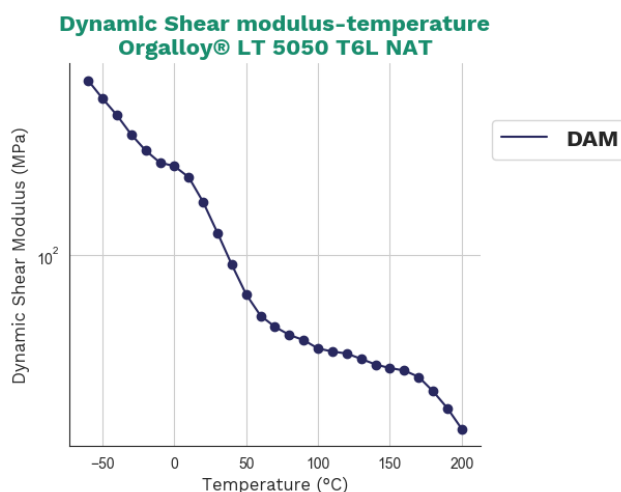
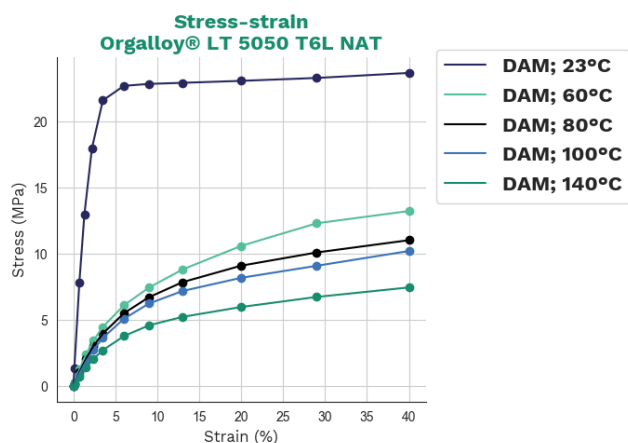
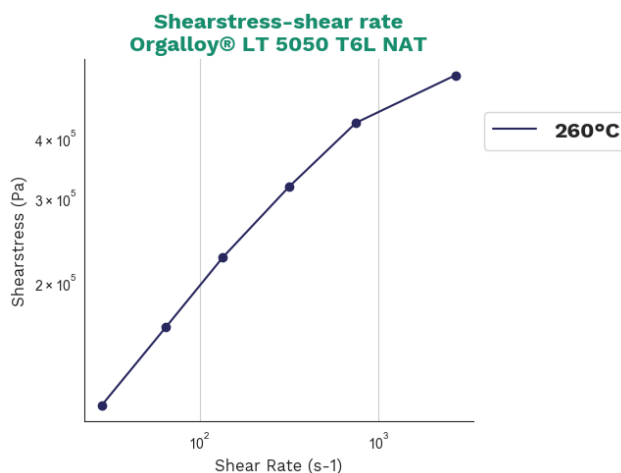
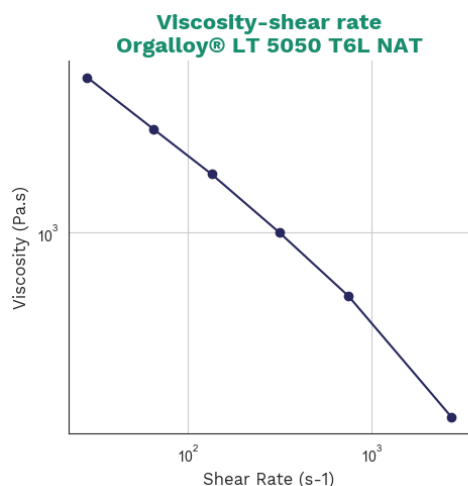
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

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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DIAGRAMS



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