

TECHNICAL DATA SHEET

ORGALLOY® RS 6030 NAT

POLYAMIDE ALLOY PELLET

ORGALLOY® RS 6030 NAT is a polyamide alloy. This natural glass reinforced grade is designed for injection molding and offers an outstanding dimensional stability, chemical resistance to automotive fluids and is ideal for the realization of complex parts.

DESIGNATION

PA*

MAIN APPLICATIONS

- Other Sport Equipment
- Beauty - Packaging
- Industry - Distribution

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

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)	2.5 cm ³ /10min	ISO 1133
Shrinkage, Parallel (t+24h)	0.2 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.0 %	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore D, 15 s	- / 78	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	59 / 60 kJ/m ²	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	57 / 58 kJ/m ²	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	15 / 16 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	10 / 11 kJ/m ²	ISO 179 1eA
Tensile modulus, 23°C (73°F), 1 mm/min	8600 / 8000 MPa	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 6240 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	185 °C	ISO 306
Heat deflection temperature, 0.45 MPa	215 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	190 °C	ISO 75-1/-2
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)	- / >1E13 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 34	IEC 60243-1
Relative permittivity, 100Hz	- / 3	IEC 60250
Relative permittivity, 1Mhz	- / 4	IEC 60250
Dissipation factor, 100Hz	- / 640	IEC 60250
Dissipation factor, 1Mhz	- / 640	IEC 60250

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COND: Conditionned.

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	1.6 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	4.7 %	ISO 62
Specific gravity, 23°C (73°F)	1.25 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.

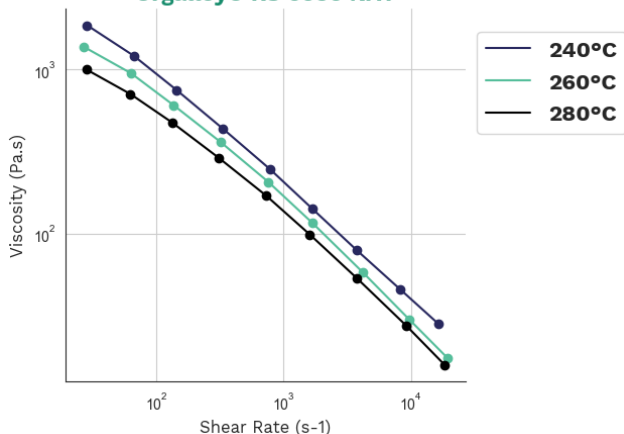
PROCESSING CONDITIONS:

- 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

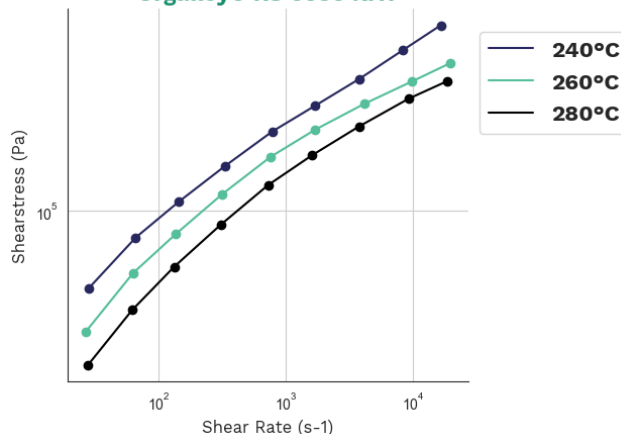
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DIAGRAMS

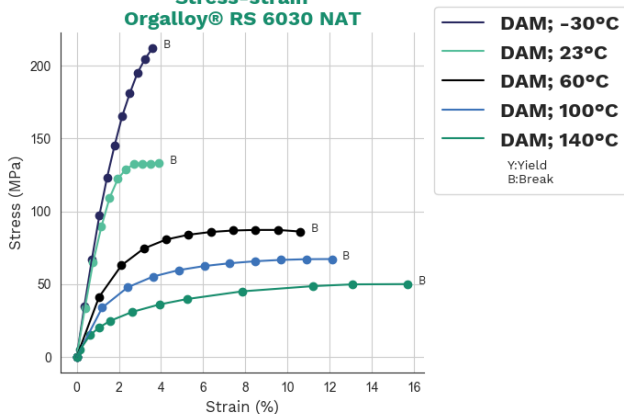
Viscosity-shear rate
Orgalloy® RS 6030 NAT



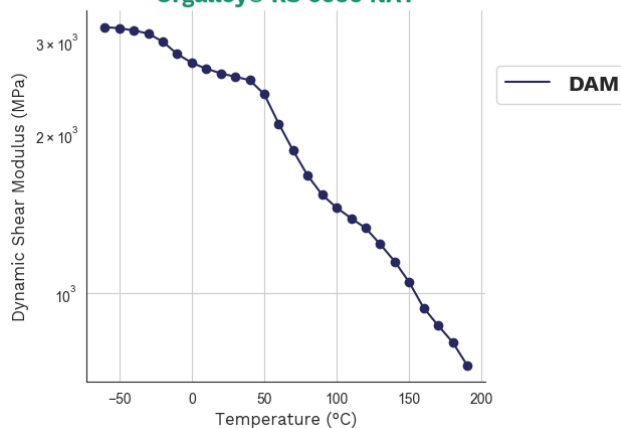
Shearstress-shear rate
Orgalloy® RS 6030 NAT



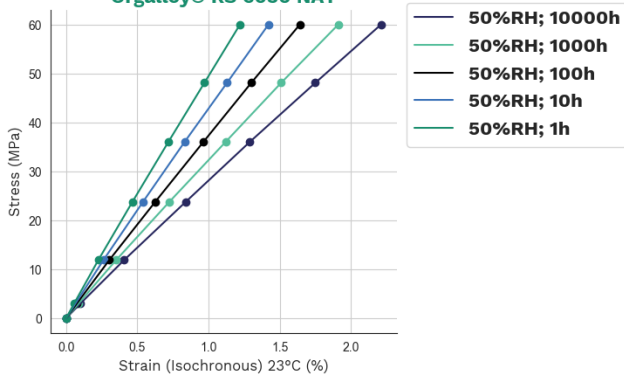
Stress-strain
Orgalloy® RS 6030 NAT



Dynamic Shear modulus-temperature
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Stress-strain (Isochronous) 23°C
Orgalloy® RS 6030 NAT



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