

TECHNICAL DATA SHEET

ORGALLOY® RS 6000 NAT

POLYAMIDE ALLOY PELLET

ORGALLOY® RS 6000 NAT is a polyamide alloy. This natural 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

- Electronics Chemicals - Solar Panels
- Accessories
- Industry - Distribution
- Auto - Others Injection

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

プロパティ	価値	テスト基準
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	8 cm ³ /10min	ISO 1133
Shrinkage, Parallel (t+24h)	1.0 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.3 %	ISO 294-4

MECHANICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Hardness, Shore D, 15 s	- / 73	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	61 / 67 kJ/m ²	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	59 / 59 kJ/m ²	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	7 / 8 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	5 / 5 kJ/m ²	ISO 179 1eA
Nominal strain at break, 23°C (73°F), 50 mm/min	14 / 21 %	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	4 / 6 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	55 / 47 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	2280 / 2030 MPa	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 1650 MPa	ISO 178

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

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THERMAL PROPERTIES

プロパティ	価値	テスト基準
Vicat softening temperature, 50N at 50°C/h	150 °C	ISO 306
Heat deflection temperature, 0.45 MPa	130 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	71 °C	ISO 75-1/-2
Melting temperature, 10°C/min	220 °C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
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)	- / 38	IEC 60243-1
Relative permittivity, 100Hz	- / 3	IEC 60250
Relative permittivity, 1Mhz	- / 3	IEC 60250
Dissipation factor, 100Hz	- / 620	IEC 60250
Dissipation factor, 1Mhz	- / 620	IEC 60250

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OTHER PROPERTIES

プロパティ	価値	テスト基準
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	2.2 %	ISO 62
Water absorption, 23°C(73°F), immersion, equilibrium	6.6 %	ISO 62
Specific gravity, 23°C (73°F)	1.03 g/cm ³	ISO 1183-1

包装

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

- 25 kg / 55 lb bags

賞味期限

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.

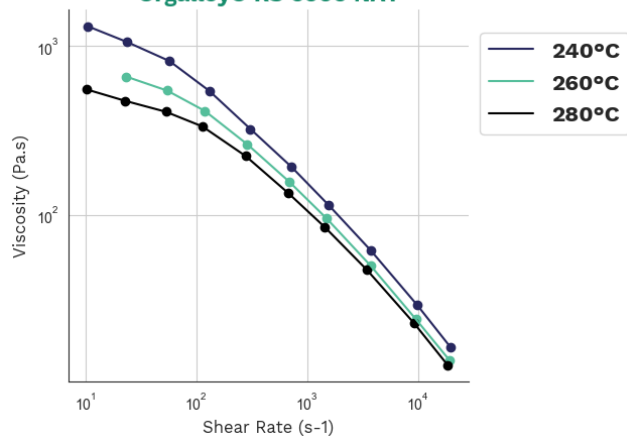
PROCESSING CONDITIONS:

- 典型的な熔融温度 (最小 / 推奨 / 最大) - 射出成形: 250°C / 270°C / 290°C (480°F / 520°F / 555°F)
- 典型的な金型温度 - 射出成形: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

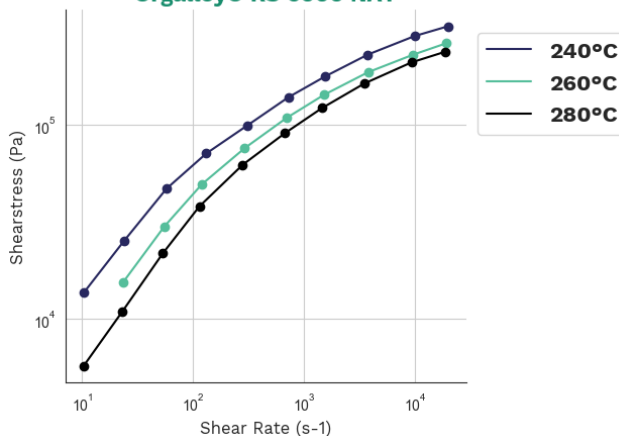
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DIAGRAMS

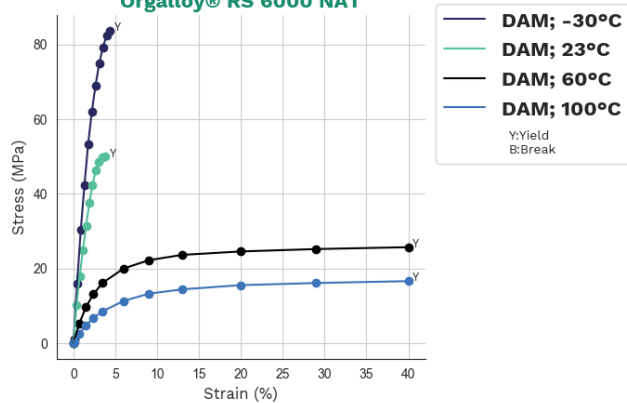
Viscosity-shear rate
Orgalloy® RS 6000 NAT



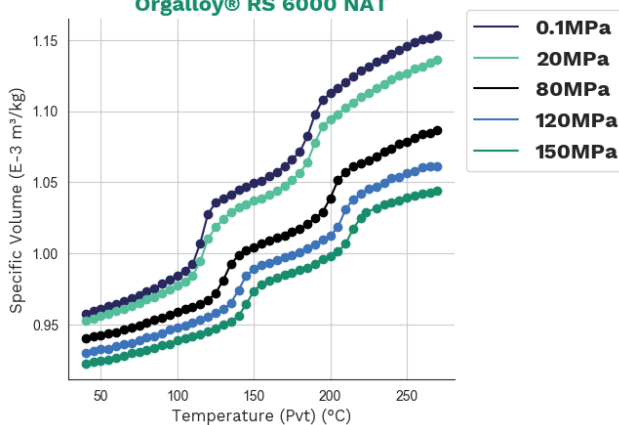
Shearstress-shear rate
Orgalloy® RS 6000 NAT



Stress-strain
Orgalloy® RS 6000 NAT

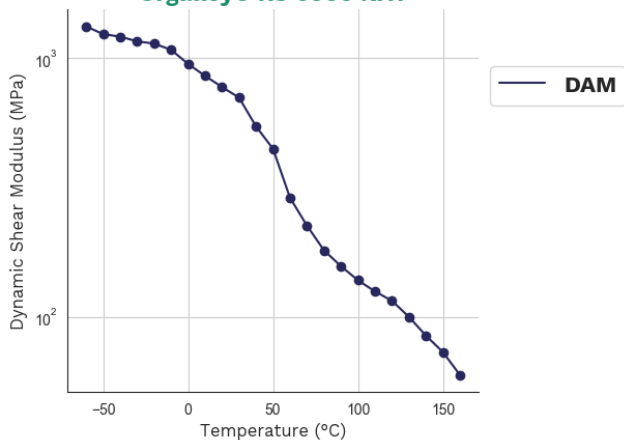


Specific volume-temperature (pvT)
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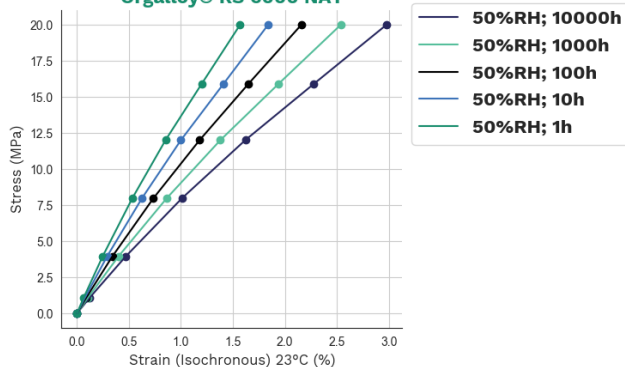


ORGALLOY® RS 6000 NAT

**Dynamic Shear modulus-temperature
Orgalloy® RS 6000 NAT**



**Stress-strain (Isochronous) 23°C
Orgalloy® RS 6000 NAT**



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