

TECHNICAL DATA SHEET

ORGALLOY® R60 ES NAT

POLYAMIDE ALLOY PELLET

ORGALLOY® R60 ES NAT is a polyamide alloy. This natural grade designed for blown film extrusion and offers good barrier properties and chemical resistance to solvents and alcohols while exhibiting a low surface tension (easy release).

TYPE

PA*

MAIN APPLICATIONS

- Film

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Blow molding

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	2.5	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Hardness, Shore D, 15 s	- / 74		ISO 868
Charpy notched impact strength, 23°C (73°F)	8 / 10	kJ/m²	ISO 179 1eA
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50	%	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 4.7	%	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 47	MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1950	MPa	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 1430	MPa	ISO 178

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

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	134	°C	ISO 306
Heat deflection temperature, 0.45 MPa	130	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	75	°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*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / >1E15	Ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / >1E13	Ohm.m	IEC 62631-3-1
Comparative tracking index, 23°C (73°F)	- / 600		IEC 60112
Dielectric stress, 23°C (73°F)	- / 38	kV/mm	IEC 60243-1
Relative permittivity, 100Hz	- / 3		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 3		IEC 62631-2-1
Dissipation factor, 100Hz	- / 620	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	- / 620	E-4	IEC 62631-2-1

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

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	2	%	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	6.1	%	ISO 62
Specific gravity, 23°C (73°F)	1.03	g/cm ³	ISO 1183-1

PACKAGING

Available packaging:

- 800 kg / 1760 lb rigid containers

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

