

## TECHNICAL DATA SHEET

# ORGALLOY® R60 ES NAT

## POLYAMIDE ALLOY PELLETT

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).

### DESIGNATION

PA\*

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

- Blow molding

### ADDITIVES

- Heat Stabilized
- Light Stabilized

## RHEOLOGICAL PROPERTIES

| 속성  | 값                          | 테스트 표준   |
|---|----------------------------|----------|
| Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb) | 2.5 cm <sup>3</sup> /10min | ISO 1133 |

## MECHANICAL PROPERTIES

| 속성  | DRY / COND VALUE*        | 테스트 표준       |
|---|--------------------------|--------------|
| Hardness, Shore D, 15 s                         | - / 74                   | ISO 868      |
| Charpy notched impact strength, 23°C (73°F)     | 8 / 10 kJ/m <sup>2</sup> | 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: Conditionned.

| 속성   | 값      | 테스트 표준         |
|--|--------|----------------|
| 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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## THERMAL PROPERTIES ELECTRICAL PROPERTIES

| 속성   | DRY / COND VALUE* | 테스트 표준        |
|--|-------------------|---------------|
| 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     |

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

## OTHER PROPERTIES

| 속성   | 값                      | 테스트 표준     |
|--|------------------------|------------|
| 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 <sup>3</sup> | ISO 1183-1 |

## PACKAGING

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

- 801 kg / 1760 lb rigid containers

## SHELF LIFE

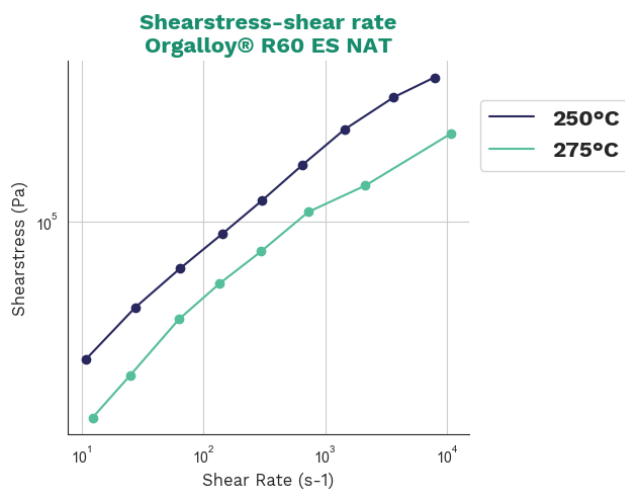
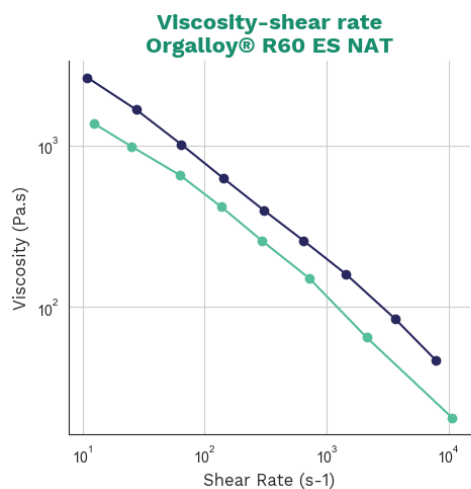
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

## 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

# ORGALLOY® R60 ES NAT

## DIAGRAMS



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