

## TECHNICAL DATA SHEET

# PEBAX<sup>®</sup> RNEW<sup>®</sup> 72R53 SP 01

## POLYETHER BLOCK AMIDE PELLET

PEBAX<sup>®</sup> RNEW<sup>®</sup> 72R53 SP 01 is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. It is partially produced from a renewable & sustainable source (castor oil). This natural SP grade is heat & UV stabilized. It is used in sport and consumer applications.

### DESIGNATION

PEBA

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

- Extrusion - General
- Film Extrusion
- Injection Molding
- Tube Extrusion

### ADDITIVES

- Heat Stabilized
- Light Stabilized

## RHEOLOGICAL PROPERTIES

| 속성                          | 값     | 테스트 표준    |
|-----------------------------|-------|-----------|
| Shrinkage, Parallel (t+24h) | 0.9 % | ISO 294-4 |
| Shrinkage, Normal (t+24h)   | 1.1 % | ISO 294-4 |

## MECHANICAL PROPERTIES

| 속성  | DRY / COND VALUE*   | 테스트 표준       |
|---|---------------------|--------------|
| Hardness, Shore D, 15 s                         | - / 65              | ISO 868      |
| Charpy unnotched impact strength, 23°C (73°F)   | - / No Break        | ISO 179 1eU  |
| Charpy unnotched impact strength, -30°C (-22°F) | - / No Break        | ISO 179 1eU  |
| Nominal strain at break, 23°C (73°F), 50 mm/min | - / > 300 %         | ISO 527-1/-2 |
| Yield strain, 23°C (73°F), 50 mm/min            | - / 28 %            | ISO 527-1/-2 |
| Yield stress, 23°C (73°F), 50 mm/min            | - / 28 MPa          | ISO 527-1/-2 |
| Tensile modulus, 23°C (73°F), 1 mm/min          | - / 560 MPa         | ISO 527-1/-2 |
| Charpy notched impact strength, 23°C (73°F)     | No Break / No Break | ISO 179 1eA  |
| Charpy notched impact strength, -30°C (-22°F)   | - / 16 kJ/m2        | ISO 179 1eA  |
| Flexural modulus, 23°C (73°F)                   | - / 560 MPa         | ISO 178      |
| Stress at break, 23°C (73°F), 50 mm/min         | - / 55 MPa          | ISO 527-1/-2 |

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

# PEBAX® RNEW® 72R53 SP 01

| 속성                            | 값      | 테스트 표준         |
|-------------------------------|--------|----------------|
| Melting temperature, 10°C/min | 186 °C | ISO 11357-1/-3 |

## OTHER PROPERTIES

| 속성   | 값                      | 테스트 표준     |
|--|------------------------|------------|
| Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR | 0.8 %                  | ISO 62     |
| Water absorption, 23°C (73°F), immersion, equilibrium      | 0.7 %                  | 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:

- 21 kg / 44 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.

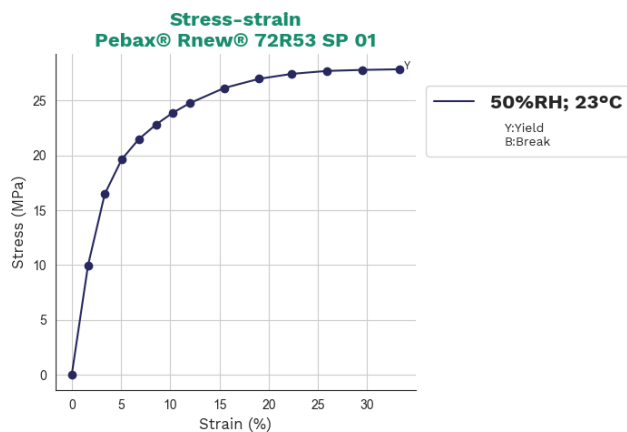
## PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 230°C / 260°C / 290°C (445°F / 500°F / 555°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 70-80°C (160-175°F) / 4-6 hours

## SPECIAL CHARACTERISTICS

- Bio-based

## DIAGRAMS



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