

## TECHNICAL DATA SHEET

# PEBAX® RNEW® 30R51 SA 01

## POLYETHER BLOCK AMIDE PELLET

PEBAX® RNEW® 30R51 SA 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 SA grade offers the highest quality. It is used in sport and consumer applications, especially when food contact compliance is requested.

### TYPE

PEBA

### MAIN APPLICATIONS

- Winter Sports - Ski Boots
- Footwear - Insole/Midsole/Foam
- Outdoor - Apparel
- Monofilament
- Breathable Films - Housewrap
- Industry - Distribution
- Antistatics

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

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

## RHEOLOGICAL PROPERTIES

| PROPERTIES                  | VALUE | UNIT | TEST STANDARD |
|-----------------------------|-------|------|---------------|
| Shrinkage, Parallel (t+24h) | 0.8   | %    | ISO 294-4     |
| Shrinkage, Normal (t+24h)   | 0.8   | %    | ISO 294-4     |

## MECHANICAL PROPERTIES

| PROPERTIES                                    | DRY / COND VALUE* | UNIT | TEST STANDARD |
|-----------------------------------------------|-------------------|------|---------------|
| Flexural modulus, 23°C (73°F)                 | - / 48            | MPa  | ISO 178       |
| Tensile modulus, 23°C (73°F), 1 mm/min        | / 59              | MPa  | ISO 527-1/-2  |
| Strain at break (TPE), 23°C (73°F), 50 mm/min | / > 700           | %    | ISO 527-1/-2  |
| Stress at break (TPE), 23°C (73°F), 50 mm/min | / 16              | MPa  | ISO 527-1/-2  |
| Hardness, Shore D, Instantaneous              | / 31              |      | ISO 868       |
| Hardness, Shore D, 15 s                       | / 30              |      | ISO 868       |

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

## THERMAL PROPERTIES

| PROPERTIES                    | VALUE | UNIT | TEST STANDARD  |
|-------------------------------|-------|------|----------------|
| Melting temperature, 10°C/min | 150   | °C   | ISO 11357-1/-3 |

## ELECTRICAL PROPERTIES

| PROPERTIES                                     | DRY / COND VALUE* | UNIT   | TEST STANDARD |
|------------------------------------------------|-------------------|--------|---------------|
| Surface resistivity, 23°C (73°F)               | - / 1E+09         | Ohm/sq | IEC 62631-3-2 |
| Volumic (transversal) resistivity, 23°C (73°F) | - / 1E+07         | Ohm.m  | IEC 62631-3-1 |

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COND: Conditioned.

## OTHER PROPERTIES

| PROPERTIES                         | VALUE | UNIT              | TEST STANDARD |
|------------------------------------|-------|-------------------|---------------|
| Bio-based carbon content, Measured | 47    | %                 | ASTM D6866    |
| Specific gravity, 23°C (73°F)      | 1.01  | g/cm <sup>3</sup> | ISO 1183-1    |

## PACKAGING

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: 180°C / 210°C / 240°C (355°F / 410°F / 465°F)
- Typical mold temperature - Injection molding: 10-30°C (50-90°F)
- Drying time and temperature: 55-65°C (130-150°F) / 4-8 hours

## SPECIAL CHARACTERISTICS

- Anti-static
- Bio-based

## REGIONAL AVAILABILITY

Asia Pacific, Europe, Latin America and the Caribbean, Middle East, Northern America