# Pebax® Rnew® 30R51 SA 01

TPA ARKEMA

## Product Texts

Polyether block **Pebax® Rnew® 30R51 SA 01 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide based on renewable resources.
**Pebax® Rnew® 30R51 SA 01 resin** is an inherently antistatic polymer and can be dry blended or compounded with a polymer matrix to lower the surface resistivity of the final part. This grade is particularly recommended for PMMA matrices. This hydrophilic grade when extruded into either a thin film or laminated on to a substrate offers excellent permeability to moisture vapor while remaining waterproof.

The percentage of **renewablecarbon measured** according to ASTM D6866 is 47%.

Refractive index according to an internal method is 1.49.

**Main applications:**

- Permanent antistatic additive for PMMA matrices
- Breathable membranes
- Note: this grade is not recommended by Arkema for usage in medical applications

**Packaging:**
This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

**Shelf Life:**
Two years from the delivery. For any use above this limit, please refer to our technical services.

| Mechanical properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Tensile Modulus | **- / 59** | MPa | ISO 527 |
| [C] Stress at 50% strain | **- / 7** | MPa | ISO 527 |
| [C] Strain at break | **- / >50** | % | ISO 527 |
| [C] Stress at break TPE | **16 / *** | MPa | ISO 527 |
| [C] Strain at break TPE | **>300 / *** | % | ISO 527 |
| [C] Shore D hardness | **30 / *** | - | ISO 7619-1 |

[C]: CAMPUS

| Thermal properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Melting temperature, 10°C/min | **150 / *** | °C | ISO 11357-1/-3 |

[C]: CAMPUS

| Electrical properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Volume resistivity | **1E8 / 1E8** | Ohm*m | IEC 62631-3-1 |
| [C] Surface resistivity | *** / 1E9** | Ohm | IEC 62631-3-2 |

[C]: CAMPUS

| Other properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| [C] Water absorption | **72 / *** | % | Sim. to ISO 62 |
| [C] Humidity absorption | **2.5 / *** | % | Sim. to ISO 62 |
| [C] Density | **1010 / -** | kg/m³ | ISO 1183 |
| Biobased content | **47** | % | - |

[C]: CAMPUS


Copyright Altair Engineering GmbH. Altair Engineering GmbH assumes no liability for the system to be free of errors. The user takes sole responsibility for the use of this data under the exclusion of every liability from Altair Engineering GmbH; this is especially valid for claims of compensation resulting from consequential damages. Altair explicitly points out that any decision about the application of materials must be double checked with the producer of this material. This includes all contents of this system. Copyright laws are applicable for the content of this system.

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | **65 - 75** | °C | - |
| Pre-drying - Time | **4 - 6** | h | - |
| Melt temperature | **200 - 270** | °C | - |
| Mold temperature | **25 - 60** | °C | - |

## Characteristics

**Processing**
Injection Molding, Other Extrusion

**Delivery form**
Pellets

**Special Characteristics**
Anti-static, Light stabilized or stable to light, Heat stabilized or stable to heat

**Certifications**
Contains renewable resources

**Regional Availability**
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

## Other text information

### Injection molding

**Processing conditions:**
- Typical melt temperature (Min / Recommended / Max): 200°C / 240°C / 270°C.
- Typical mold temperature: 25–60°C.
- Drying time and temperature (only necessary for bags opened for more than two hours): 4-6 hours at 65-75°C.

### Other extrusion

**Processing conditions:**
- Typical melt temperature (Min / Recommended / Max): 210°C / 220°C / 230°C.
- Drying time and temperature (only necessary for bags opened for more than two hours): 4-6 hours at 65-75°C.


Copyright Altair Engineering GmbH. Altair Engineering GmbH assumes no liability for the system to be free of errors. The user takes sole responsibility for the use of this data under the exclusion of every liability from Altair Engineering GmbH; this is especially valid for claims of compensation resulting from consequential damages. Altair explicitly points out that any decision about the application of materials must be double checked with the producer of this material. This includes all contents of this system. Copyright laws are applicable for the content of this system.