

# PEBAX®

## 5513 SP 01

Polyether block amide **Pebax® 5513 SP 01 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide. Added to PA6, **Pebax® 5513 SP 01 resin** enhances the properties of PA6, especially at low temperatures and low humidity content, at the same time maintaining the transparency of the nylon film and improving its soft touch. This SP grade has been developed to be heat and UV resistant.

| PROPERTIES                              | DRY /<br>COND   | UNIT     | TEST<br>STANDARD |
|---|-----------------|----------|------------------|
| MECHANICAL PROPERTIES                   |                 |          |                  |
| Tensile Modulus                         | - / 180         | MPa      | ISO 527-1/-2     |
|   | - /             | psi      |                  |
| Yield stress                            | 26100<br>14713  | MPa      | ISO 527-1/-2     |
|   | 2030 / 1890     | psi      |                  |
| Yield strain                            | 32 / 30         | %        | ISO 527-1/-2     |
| Nominal Strain at Break                 | >50 / >50       | %        | ISO 527-1/-2     |
| Strain at Break TPE                     | >300 / *        | %        | ISO 527-1/-2     |
| Stress at Break TPE                     | 60 / *          | MPa      | ISO 527-1/-2     |
|   | 8700 / *        | psi      |                  |
| Shore D Hardness                        | 54 / *          | -        | ISO 868          |
| Charpy Impact Strength, +23°C           | - / No<br>Break | kJ/m²    | ISO 179/1eU      |
| Charpy Impact Strength, -30°C           | - / No<br>Break | kJ/m²    | ISO 179/1eU      |
| Charpy Notched Impact Strength, +23°C   | - / No<br>Break | kJ/m²    | ISO 179/1eA      |
| Charpy Notched Impact Strength, -30°C   | - / 34          | kJ/m²    | ISO 179/1eA      |
|   | - / 16.2        | ftlb/in² |                  |
| THERMAL PROPERTIES                      |                 |          |                  |
| Melting Temperature, 10°C/min           | 195 / *         | °C       | ISO 11357-1/-3   |
| Vicat Softening Temperature, 50°C/h 50N | 169 / *         | °C       | ISO 306          |
|   | 336 / *         | °F       |                  |
| OTHER PROPERTIES                        |                 |          |                  |
| Water Absorption                        | 6.7 / *         | %        | Sim. to ISO 62   |
| Humidity Absorption                     | 1.3 / *         | %        | Sim. to ISO 62   |
| Density                                 | 1090 / 1090     | kg/m³    | ISO 1183         |
|   | 1.09 / 1.09     | g/cm³    |                  |

**MAIN APPLICATIONS:** • PA6 film additive

### PACKAGING:

This grade is delivered dried in sealed packaging (20 kg and 25 kg bags and 454 kg rigid containers) ready to be processed.

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### SHELF LIFE:

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

### Processing conditions:

- Typical melt temperature (Min / Recommended / Max): 220°C / 240°C / 260°C.
- Typical mold temperature: 25–60°C.
- Drying time and temperature (only necessary for bags/containers opened for more than two hours): 5-7 hours at 70-90°C.

### Processing conditions:

- Typical melt temperature (Min / Recommended / Max): 220°C / 235°C / 250°C.
- Drying time and temperature (only necessary for bags/containers opened for more than two hours): 5-7 hours at 70-90°C.

|  |  |
|--|--|
| <b>PROCESSING</b>  |  |
| Injection Molding, Other Extrusion   |  |
| <b>DELIVERY FORM</b>   |  |
| Pellets  |  |
| <b>SPECIAL CHARACTERISTICS</b>   |  |
| Heat Stabilized, Light Stabilized  |  |
| <b>REGIONAL AVAILABILITY</b>   |  |
| North America, Europe, Asia Pacific, South and Central America, Near East/Africa |  |