

# PEBAX®

## 2533 SA 01 MED

Polyether block amide **Pebax® 2533 SA 01 MED resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide.

This grade offers the highest quality and it is specially designed to meet the stringent requirements of the medical applications such as minimally invasive devices.

Upon request, letters regarding USP Class VI compliance can be provided.

| PROPERTIES                            | DRY / COND          | UNIT  | TEST STANDARD   |
|---------------------------------------|---------------------|-------|-----------------|
| RHEOLOGICAL PROPERTIES                |                     |       |                 |
| Molding Shrinkage, parallel           | 0.5 / *             | %     | ISO 294-4, 2577 |
| Molding Shrinkage, normal             | 0.8 / *             | %     | ISO 294-4, 2577 |
| MECHANICAL PROPERTIES                 |                     |       |                 |
| Tensile Modulus                       | 12 / 10             | MPa   | ISO 527-1/-2    |
|                                       | 1740 / 1450         | psi   |                 |
| Stress at 50% Strain                  | 3 / 3               | MPa   | ISO 527-1/-2    |
|                                       | 435 / 435           | psi   |                 |
| Strain at Break                       | >50 / >50           | %     | ISO 527-1/-2    |
| Stress at 10% Elongation              | 1 / *               | MPa   | ISO 527-1/-2    |
|                                       | 145 / *             | psi   |                 |
| Stress at 100% Elongation             | 4 / *               | MPa   | ISO 527-1/-2    |
|                                       | 580 / *             | psi   |                 |
| Stress at 300% Elongation             | 5 / *               | MPa   | ISO 527-1/-2    |
|                                       | 725 / *             | psi   |                 |
| Strain at Break TPE                   | >300 / *            | %     | ISO 527-1/-2    |
| Stress at Break TPE                   | 32 / *              | MPa   | ISO 527-1/-2    |
|                                       | 4640 / *            | psi   |                 |
| Shore A Hardness                      | 77 / *              | -     | ISO 868         |
| Shore D Hardness                      | 22 / *              | -     | ISO 868         |
| Charpy Impact Strength, +23°C         | No Break / No Break | kJ/m² | ISO 179/1eU     |
| Charpy Impact Strength, -30°C         | No Break / No Break | kJ/m² | ISO 179/1eU     |
| Charpy Notched Impact Strength, +23°C | No Break / No Break | kJ/m² | ISO 179/1eA     |
| Charpy Notched Impact Strength, -30°C | No Break / No Break | kJ/m² | ISO 179/1eA     |
| THERMAL PROPERTIES                    |                     |       |                 |
| Melting Temperature, 10°C/min         | 134 / *             | °C    | ISO 11357-1/-3  |
| OTHER PROPERTIES                      |                     |       |                 |
| Water Absorption                      | 1.2 / *             | %     | Sim. to ISO 62  |
| Humidity Absorption                   | 0.4 / *             | %     | Sim. to ISO 62  |

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Density

1000 / 1000

kg/m<sup>3</sup>

ISO 1183

1 / 1

g/cm<sup>3</sup>

**MAIN APPLICATIONS:** • Catheters

• Flexible injected parts

### PACKAGING:

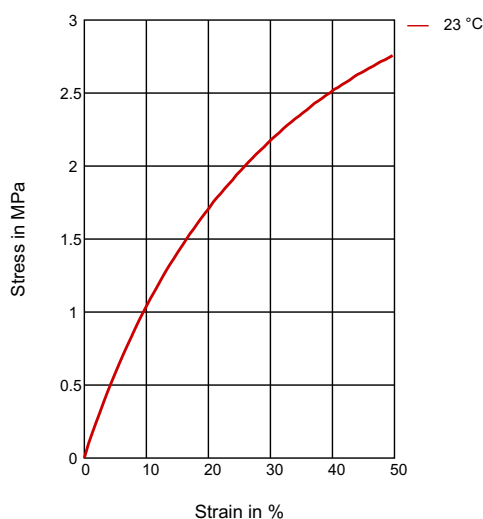
This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

### SHELF LIFE:

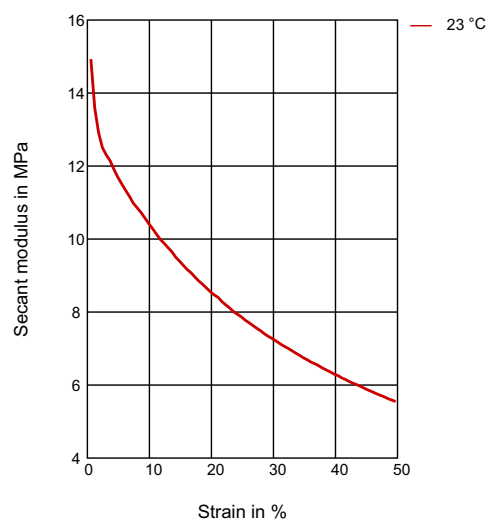
Two years from the delivery. For any use above this limit, please refer to our technical services.

### DIAGRAMS

#### STRESS-STRAIN



#### SECANT MODULUS-STRAIN



#### Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 180°C / 210°C / 240°C.
- Typical mold temperature : 10 – 30°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-8 hours at 55-65°C.

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