

Pebax® 2533 SA 01

TPA

Pebax® 2533 SA 01 resin

Polyether block amide **Pebax® 2533 SA 01** resin is a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SA grade is specially designed to food uses. Its chemical structure also enables the absorption and the controlled release of volatile molecules (fragrances, oils, insecticides...).

Main applications:

- Flexible injected parts.
- Controlled release of volatile molecules (fragrances, oils, insecticides, etc...).

Note: this grade is not recommended by Arkema for usage in medical applications. For such applications Pebax® SA 01 MED should be used.

Packaging:

This grade is delivered dried in sealed packaging (25 kg bags or 550kg rigid containers) ready to be processed.

Shelf Life:

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

Rheological properties

	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.5 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

Mechanical properties

	dry / cond	Unit	Test Standard
Tensile Modulus	12 / 10	MPa	ISO 527-1/-2
Stress at 50% strain	3 / 3	MPa	ISO 527-1/-2
Strain at break	>50 / >50	%	ISO 527-1/-2
Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eA

Thermal properties

	dry / cond	Unit	Test Standard
Melting temperature, 10°C/min	134 / *	°C	ISO 11357-1/-3
Vicat softening temperature, 50°C/h 50N	58 / *	°C	ISO 306

Other properties

	dry / cond	Unit	Test Standard
Water absorption	1.2 / *	%	Sim. to ISO 62
Humidity absorption	0.4 / *	%	Sim. to ISO 62
Density	1000 / 1000	kg/m ³	ISO 1183

Test specimen production

	Value	Unit	Test Standard
Injection Molding, melt temperature	210	°C	ISO 294
Injection Molding, mold temperature	30	°C	ISO 10724

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Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Stress at 10% elongation	1 / *	MPa	ISO 527-1/-2
Stress at 100% elongation	4 / *	MPa	ISO 527-1/-2
Stress at 300% elongation	5 / *	MPa	ISO 527-1/-2
Strain at break TPE	>300 / *	%	ISO 527-1/-2
Stress at break TPE	32 / *	MPa	ISO 527-1/-2
Shore A hardness, 3s	77 / *	-	ISO 7619-1
Shore D hardness, 15s	22 / *	-	ISO 7619-1

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/containers opened for more than two hours) : 4-8 hours at 55-65°C.

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Additives

Lubricants

Special Characteristics

Light stabilized or stable to light, Heat stabilized or stable to heat

Regional Availability

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