

## TECHNICAL DATA SHEET

# PEBAX® 4533 SA 01

## POLYETHER BLOCK AMIDE PELLET

PEBAX® 4533 SA 01 is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SA grade offers the highest quality. It is used in sport and consumer applications, especially when food contact compliance is requested.

### DESIGNATION

PEBA

### MAIN APPLICATIONS

- Footwear - Outsole/Components
- Industry - Distribution

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

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

## RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Shrinkage, Parallel (t+24h)	0.6 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.1 %	ISO 294-4

## MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore A, 15 s	- / 90	ISO 868
Hardness, Shore D, 15 s	- / 41	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	- / No Break	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No Break	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	No Break / No Break	ISO 179 1eA
Stress at 50% strain, 23°C (73°F), 50 mm/min	9 / 9 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	88 / 81 MPa	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 86 MPa	ISO 178
Stress at break, 23°C (73°F), 50 mm/min	- / 42 MPa	ISO 527-1/-2
Abrasion resistance	40 / - mm <sup>3</sup>	ISO 4649
Nominal strain at break, 23°C (73°F), 50 mm/min	> 550 / > 550 %	ISO 527-1/-2

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

## THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	147 °C	ISO 11357-1/-3

# PEBAX® 4533 SA 01

## OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.4 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.2 %	ISO 62
Specific gravity, 23°C (73°F)	1.01 g/cm <sup>3</sup>	ISO 1183-1

## PACKAGING

This grade is delivered dried in sealed packaging ready to be processed. 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: 210°C / 240°C / 270°C (410°F / 430°F / 520°F)
- Typical mold temperature - Injection molding: 10-30°C (50-90°F)
- Drying time and temperature: 60-70°C (140-160°F) / 4-8 hours

## REGIONAL AVAILABILITY

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

**Headquarter: Arkema France**  
420, rue d'Estienne d'Orves  
92705 Colombes Cedex – France  
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/global/en/products/product-safety/disclaimer/> which is incorporated herein by reference and made a part hereof.  
Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790

[arkema.com](https://www.arkema.com)

**ARKEMA**