# **ARKEMA**



# Pebax® 4033 SA 01 MED TPA

ARKEM/

Polyether block amide **Pebax® 4033 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.

### 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.

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	73 / 71	MPa	ISO 527
Stress at 50% Strain	9 / 9	MPa	ISO 527
Strain at Break	>50 / >50	%	ISO 527
Shore Hardness A (15s)	89 / -	-	ISO 868
Shore Hardness D (15s)	35 / -	-	ISO 868

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	160 / *	°C	ISO 11357-1/-3

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	1.2 / *	%	Sim. to ISO 62
Humidity absorption	0.5 / *	%	Sim. to ISO 62
Density	1000 / 1000	kg/m³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	60 - 70	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	200 - 270	°C	-
Mold temperature	10 - 30	°C	-

#### Characteristics

Processing Injection Molding, Other Extrusion	Special Characteristics Light stabilized or stable to light, Heat aging stabilized
Delivery form	Certifications
Pellets	Medical, US Pharmacopeia Class VI Approved

## Injection Molding

### Processing conditions:

- Typical melt temperature (Min / Recommended / Max) :  $200\,^{\circ}\text{C}$  /  $240\,^{\circ}\text{C}$  /  $270\,^{\circ}\text{C}$ .
- Typical mold temperature: 10 30°C.
- Drying time and temperature (only necessary for bags opened for more than two hours): 4-6 hours at 60-70°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 60-70°C.