

# COOLPOLY® E3617

## COOLPOLY®

### Product information

Resin Identification	PA6	ISO 1043
Part Marking Code	>PA6<	ISO 11469

### Typical mechanical properties

Tensile modulus	10500 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	47 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.6 %	ISO 527-1/-2
Flexural modulus	12500 MPa	ISO 178
Flexural strength	75 MPa	ISO 178
Charpy impact strength, 23°C	4.5 kJ/m <sup>2</sup>	ISO 179/1eU
Poisson's ratio	0.34 <sup>[C]</sup>	

[C]: Calculated

### Thermal properties

Thermal conductivity, flow	31 W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	24 W/(m K)	ISO 22007-2
Thermal conductivity, through plane	4.5 W/(m K)	ISO 22007-2
Effective thermal diffusivity, flow	2E-11 <sup>[1]</sup> m <sup>2</sup> /s	ISO 22007-4
Specific heat capacity of melt	1200 <sup>[1]</sup> J/(kg K)	ISO 22007-4

[1]: RI data

### Physical/Other properties

Density	1620 kg/m <sup>3</sup>	ISO 1183
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### Injection

Back pressure	3 MPa
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### Characteristics

Processing	Injection Moulding
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### Additional information

Processing Notes

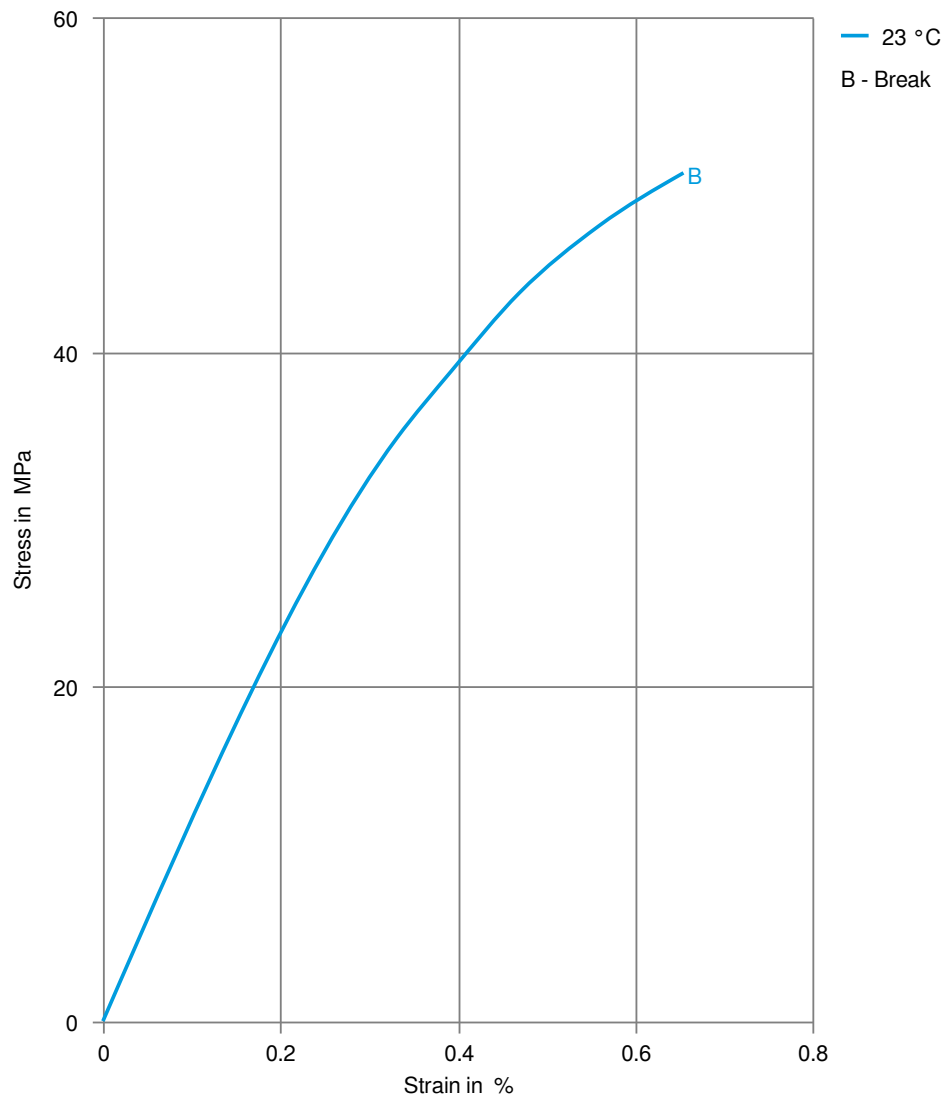
#### Pre-Drying

- A low compression screw (less than 2.5:1) is recommended.
- Due to drool a reverse taper nozzle is suggested
- During startup raise nozzle temperature until process stabilizes to help prevent initial nozzle freeze-off
- Material should be dried to a moisture content level of .05% or less prior to injection molding.
- Material is moisture sensitive. During processing use of a preheated desiccant dryer 175F is advised to keep material dry.
- Immediately close and seal any bag or container of unused material.

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## Stress-strain



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## Secant modulus-strain

