Celanese
The chemistry inside innovation™

COOLPOLY® E3629

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Product information

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

Rheological properties

Moulding shrinkage range, parallel	0.3 - 0.4	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.4 - 0.5	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	10000 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	52 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.8 / -	%	ISO 527-1/-2
Flexural modulus	12000 / -	MPa	ISO 178
Flexural strength	90 / -	MPa	ISO 178
Flexural strain at failure	1.1 / -	%	ISO 178
Charpy impact strength, 23 °C	8 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23 °C	4 / -	kJ/m²	ISO 179/1eA
Poisson's ratio	0.23 / -		

Thermal properties

	dry/cond.		
Temperature of deflection under load, 1.8 MPa	205 / *	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	22 / *	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	63 / *	E-6/K	ISO 11359-1/-2
Thermal conductivity, flow	18	W/(m K)	ISO 22007-2
Thermal conductivity, through plane	4	W/(m K)	ISO 22007-2
Specific heat capacity of melt	1210	J/(kg K)	ISO 22007-4

Physical/Other properties

	dry/cond.		
Density	1600 / -	kg/m³	ISO 1183

Injection

Back pressure	3.5	MPa
Ejection temperature	177	°C

Characteristics

Processing	Injection Moulding
Special characteristics	U.V. stabilised or stable to weather, Light weight

Additional information

Injection molding

Processing

A low compression screw (2.5:1 or less) is recommended. Large reverse taper nozzle is suggested. Raise nozzle temps at startup until process stabilizes than

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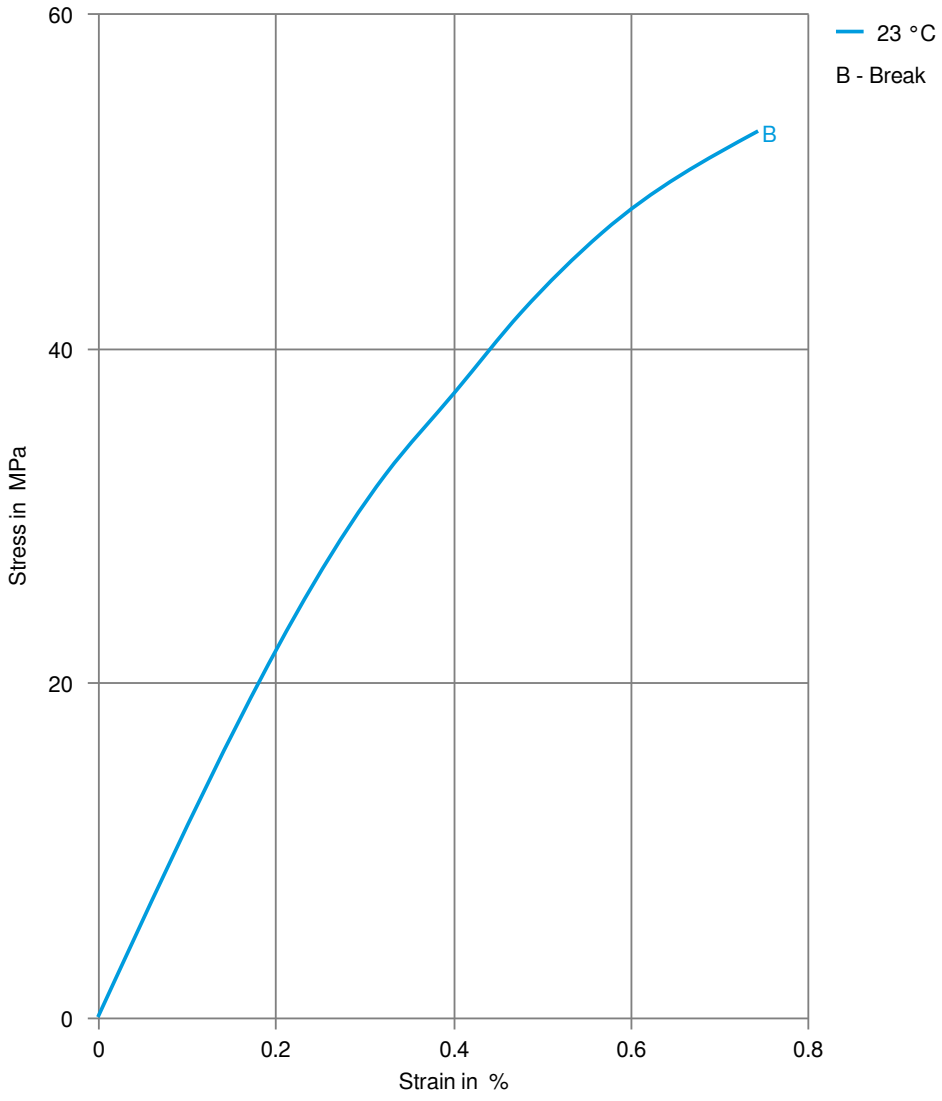
bring back down to typical value. Material is moisture sensitive.

Stress-strain



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Secant modulus-strain