Celanese
The chemistry inside innovation™

HOSTAFORM® M25AE ECO-C 872

HOSTAFORM®

Hostaform® M25AE ECO-C 872 is a special grade of acetal copolymer targeted for extrusion shapes (rod, bar, plate, etc.) free of center porosity in large diameters and thicknesses.
ECO-C: Hostaform® POM M25AE ECO-C 872 incorporates circular content derived from captured carbon dioxide emissions in the finished product through mass balance allocation. The product is a drop-in replacement to the standard grade with the same performance and processing properties and contributes to the displacement of virgin fossil fuel resources. The feedstock utilizing captured carbon dioxide emissions are ISCC CFC certified as low carbon intensity methanol.

Product information

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

Rheological properties

Melt volume-flow rate	2.5	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Melt mass-flow rate	2.9	g/10min	ISO 1133
Melt mass-flow rate, Temperature	190	°C	
Melt mass-flow rate, Load	2.16	kg	

Typical mechanical properties

Tensile modulus	2400	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	61	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	11	%	ISO 527-1/-2
Flexural modulus	2400	MPa	ISO 178
Charpy impact strength, 23°C	250[P]	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	250	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	8.5	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.38[C]		

[P]: Partial Break

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	163	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	91	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	110	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	100	E-6/K	ISO 11359-1/-2

Flammability

FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	36.5	mm/min	ISO 3795 (FMVSS 302)

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Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	1410	kg/m³	ISO 1183

Injection

Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Min. mould temperature	80	°C
Max. mould temperature	120	°C
Hold pressure range	60 - 120	MPa
Back pressure	4	MPa

Characteristics

Processing	Injection Moulding, Extrusion, Sheet Extrusion, Other Extrusion
Delivery form	Pellets
Sustainability	Carbon Capture

Additional information

Profile extrusion

Preprocessing

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

Processing

Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

Postprocessing

Conditioning e.g. moisturizing is not necessary.

In case of very thick wall thickness profiles after-annealing it is recommended to reduce internal stress.

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Annealing temperature 130-140 °C
Annealing time 10 min/mm thickness

Sheet extrusion

Preprocessing

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

Processing

Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

Postprocessing

Conditioning e.g. moisturizing is not necessary.

In case of very thick wall thickness profiles after-annealing it is recommended to reduce internal stress.

Annealing temperature 130-140 °C
Annealing time 10 min/mm thickness

Processing Notes

Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

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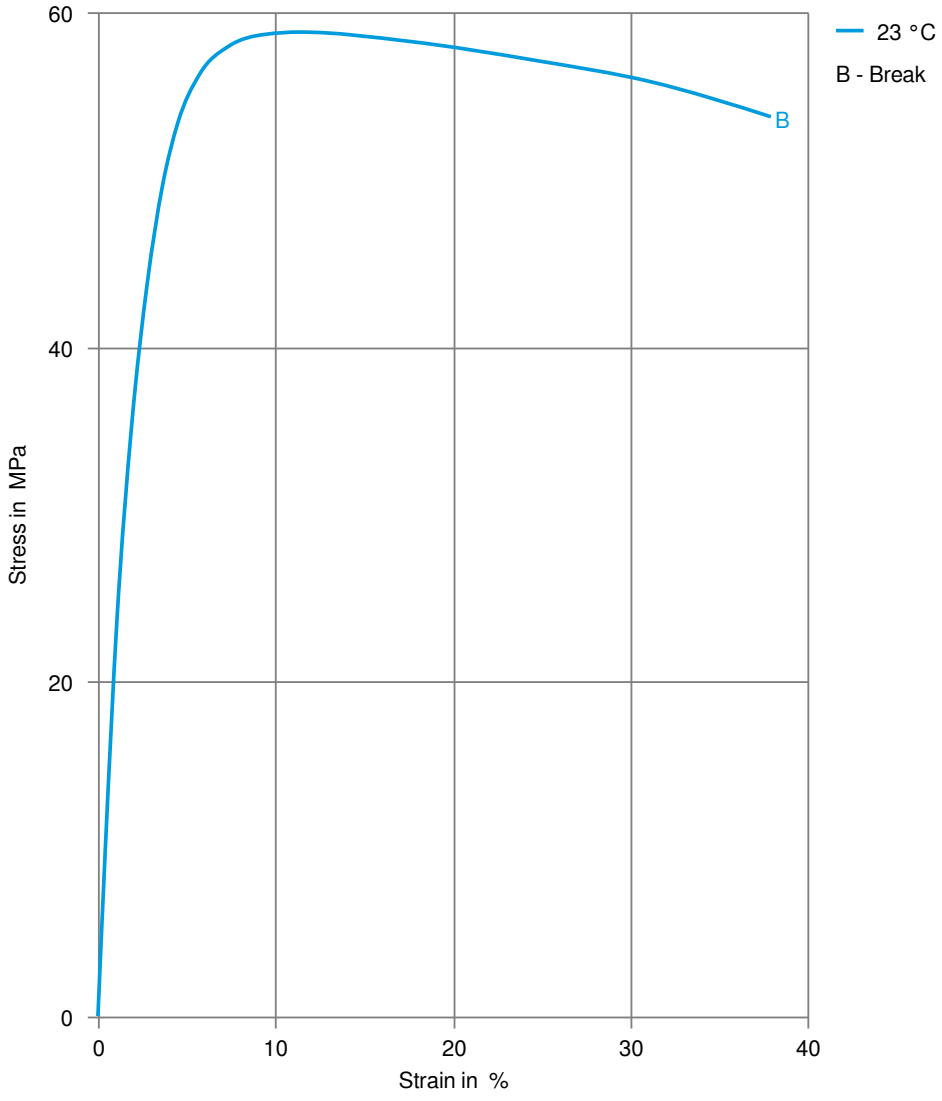
Stress-strain



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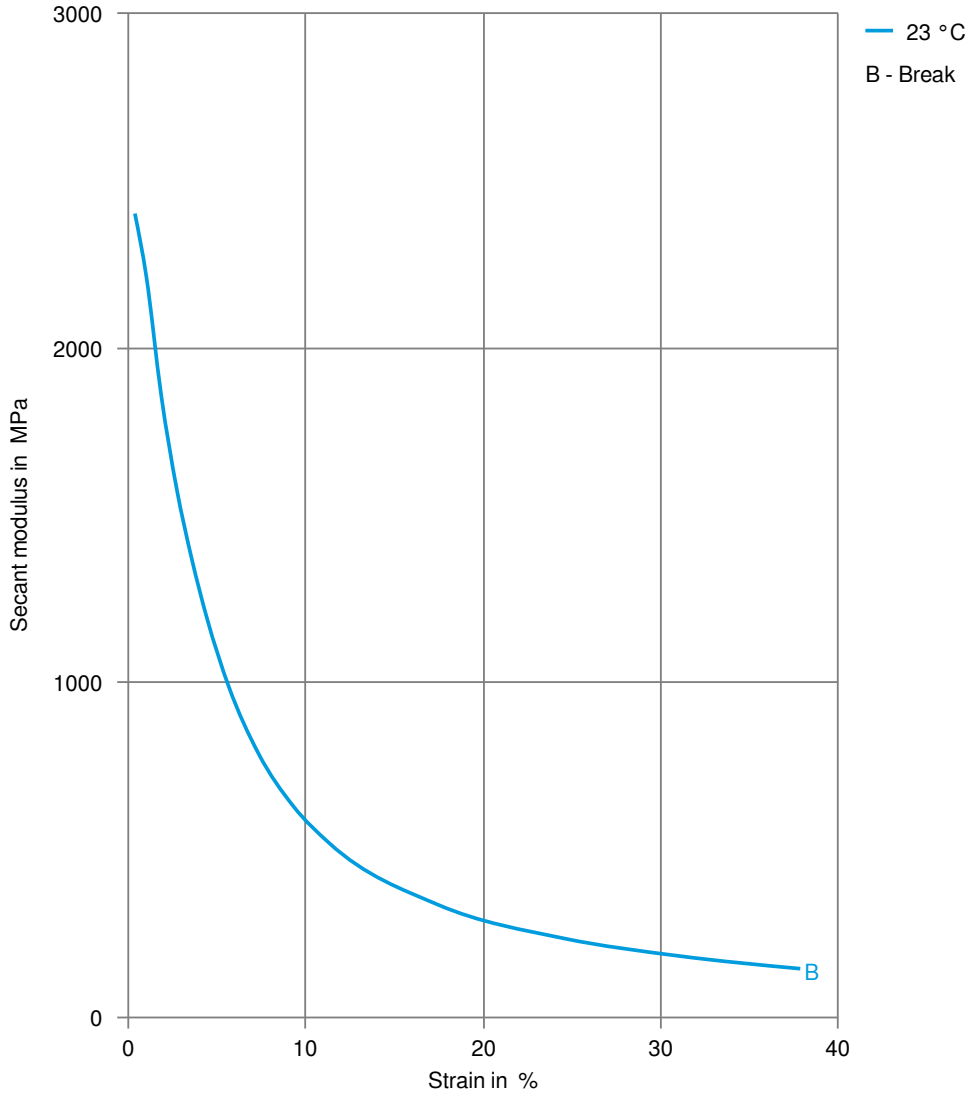
Secant modulus-strain



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