

PLEXIGLAS® Heatresist FT15

Röhm GmbH
PMMA

Processing

Injection molding

Delivery Form

Pellets

Special Characteristics

Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat, Transparent

Applications

Automotive

Product Text

Product Information

Productprofil:

PLEXIGLAS® Heatresist FT15 is a special acrylic-based polymer.

With regard to its

- good weather resistance and
- high light transmission,

PLEXIGLAS® Heatresist FT15 shows comparable properties to those of PLEXIGLAS® standard molding compounds. In addition, PLEXIGLAS® Heatresist FT15 offers the special benefit of a

- high heat deflection temperature combined with good flow.

Application:

PLEXIGLAS® Heatresist FT15 is particularly suitable for injection moldings.

Example:

luminaire covers, automotive lights and technical moldings exposed to high temperatures.

Processing:

PLEXIGLAS® Heatresist FT15 can be processed on injection-molding machines with 3-zone general purpose screws for engineering thermoplastics. Good pre-desiccation must be pointed out.

Physical Form / Packaging:

PLEXIGLAS® Heatresist FT15 is supplied as pellets of uniform size, packaged in 25kg, two-ply polyethylene bags; other packaging on request.

PLEXIGLAS® Heatresist FT15

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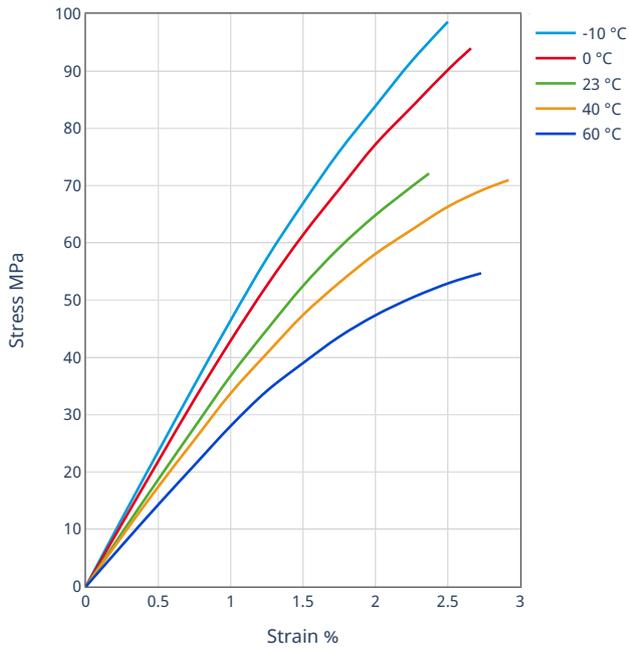
Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	4.5	cm ³ /10min	ISO 1133
Temperature	230	°C	
Load	3.8	kg	
Density of melt	1110	kg/m ³	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	3500	MPa	ISO 527
Stress at break	50	MPa	ISO 527
Strain at break	3.1	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	18	kJ/m ²	ISO 179/1eU
Thermal Properties	Value	Unit	Standard
Glass transition temperature, 10°C/min	121	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	105	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	107	°C	ISO 75-1/-2
Vicat softening temperature, B	115	°C	ISO 306
Coeff. of linear therm. expansion, parallel	66	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.57	mm	
Yellow card available	yes		
Electrical Properties	Value	Unit	Standard
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Optical Properties	Value	Unit	Standard
Luminous transmittance	91	%	ISO 13468-1, -2
Other Properties	Value	Unit	Standard
Density	1190	kg/m ³	ISO 1183
Test Specimen Production	Value	Unit	Standard
Injection molding, melt temperature	230	°C	ISO 294
Injection molding, mold temperature	70	°C	ISO 294
Injection molding, injection velocity	195	mm/s	ISO 294

Diagrams

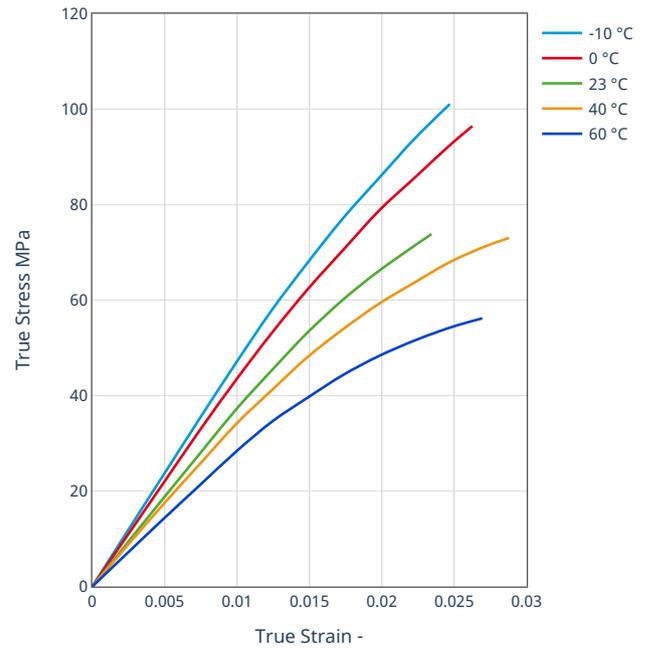
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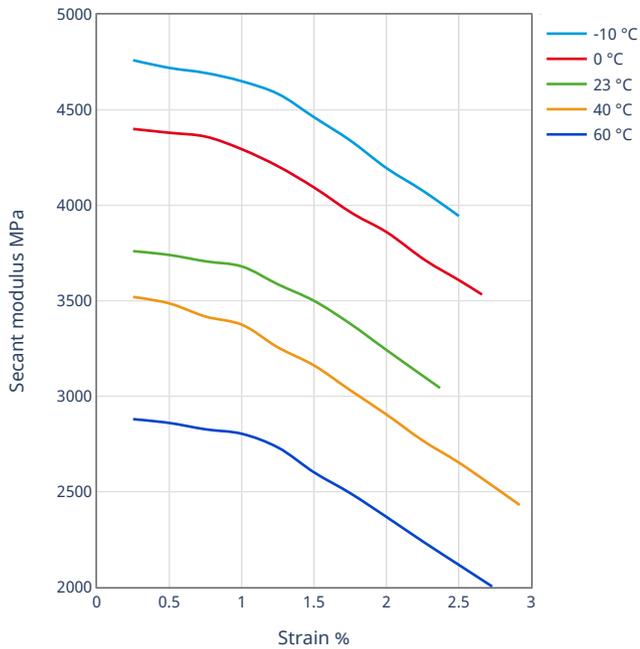
Stress-strain



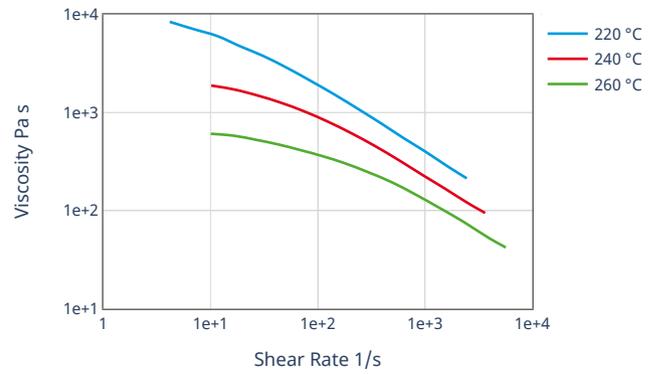
True stress-true strain



Secant modulus-strain



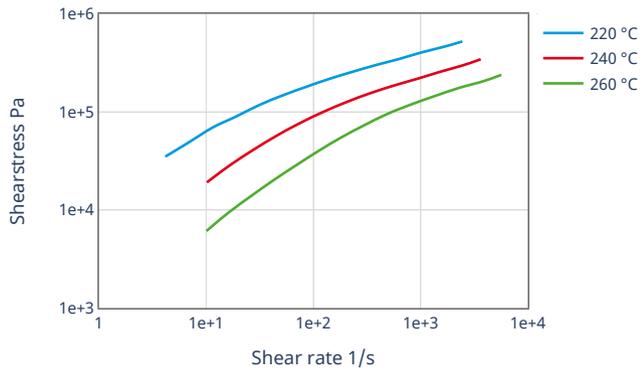
Viscosity-shear rate



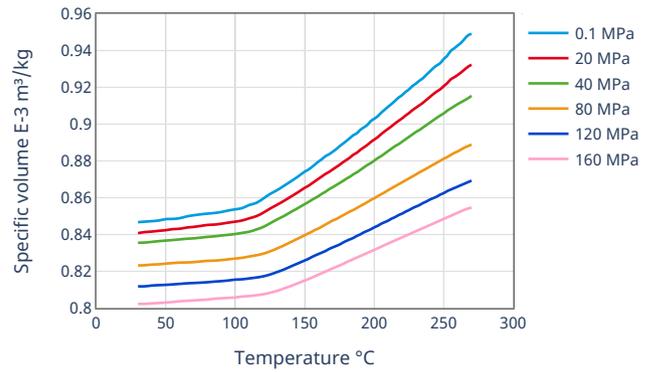
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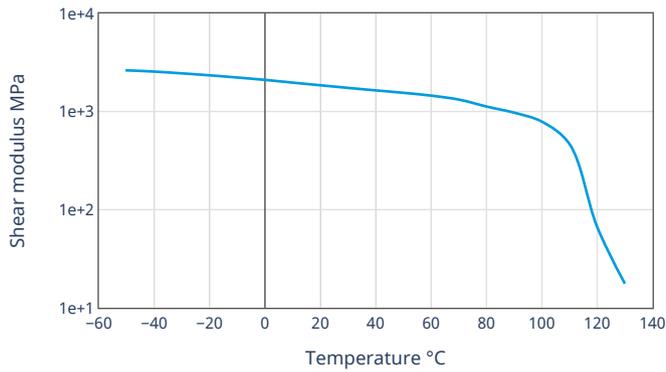
Shearstress-shear rate



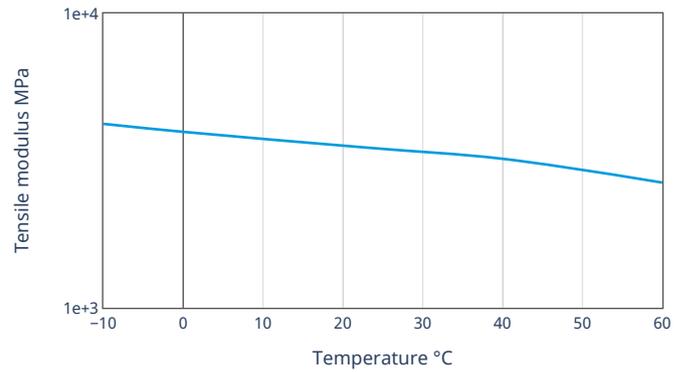
Spec. volume-Temperature (pVT)



Dynamic shear modulus-temperature



Tensile modulus-temperature



Processing Information

Injection molding

PREPROCESSING

Predrying temperature: max. 100 °C

Predrying time in a desiccant-type drier: 4 - 6 h

PROCESSING

Melt temperature: 220 - 250°C

Mold temperature: 60 - 90°C