

## PLEXIGLAS® Softlight 8N df23

### PMMA

Röhm GmbH

#### Productprofil:

PLEXIGLAS® Softlight 8N df23, based on PLEXIGLAS® 8N, is characterized by diffuse scattering of light.

Typical properties of PLEXIGLAS® molding compound are

1. good flow
2. high mechanical strength, surface hardness and mar resistance
3. very good weather resistance.

Special properties of PLEXIGLAS® Softlight 8N df23 are

1. excellent lightdiffusion combined with excellent light transmission.

#### Application:

Used for injection molding items for lighting engineering applications

#### Example:

luminaire covers, projection screens and similar applications

#### Processing:

PLEXIGLAS® Softlight 8N df23 can be processed on injection molding machines with 3-zone general purpose screws for engineering thermoplastics.

#### Physical Form / Packaging:

PLEXIGLAS® Softlight df molding compounds are supplied as pellets of uniform size, packaged in 25kg polyethylene bags; other packaging on request.

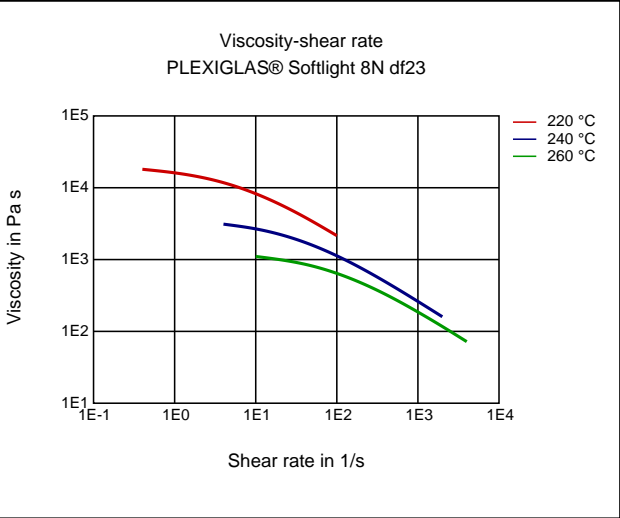
Rheological properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	2.1	cm³/10min	ISO 1133
Temperature	230	°C	-
Load	3.8	kg	-
<b>Mechanical Properties</b>			
<b>ISO Data</b>			
Tensile Modulus	3300	MPa	ISO 527
Stress at Break	65	MPa	ISO 527
Strain at Break	2.5	%	ISO 527
Impact Strength (Charpy), +23°C	16	kJ/m²	ISO 179/1eU
<b>Thermal Properties</b>			
<b>ISO Data</b>			
Glass Transition Temperature (10°C/min)	108	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	98	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	103	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	109	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	63	E-6/K	ISO 11359-1/-2
<b>Electrical Properties</b>			
<b>ISO Data</b>			
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	1E13	Ohm	IEC 62631-3-2
<b>Other Properties</b>			
<b>ISO Data</b>			
Density	1190	kg/m³	ISO 1183

Material Specific Properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Luminous transmittance	81	%	ISO 13468-1, -2

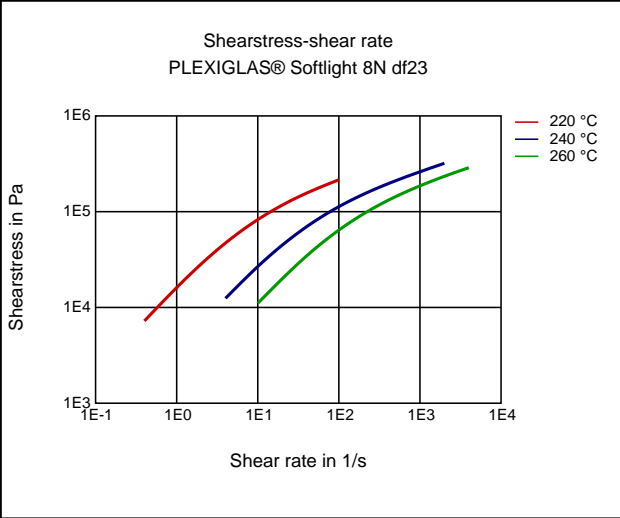
Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
Injection Molding, melt temperature	248	°C	ISO 294
Injection Molding, mold temperature	69	°C	ISO 294
Injection Molding, injection velocity	195	mm/s	ISO 294

Diagrams

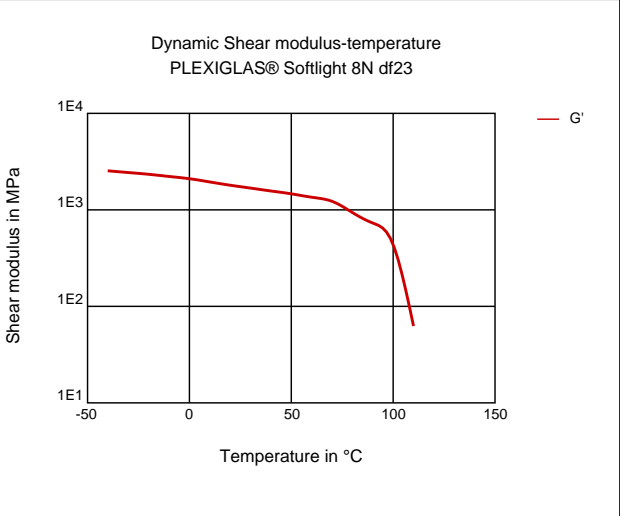
Viscosity-shear rate



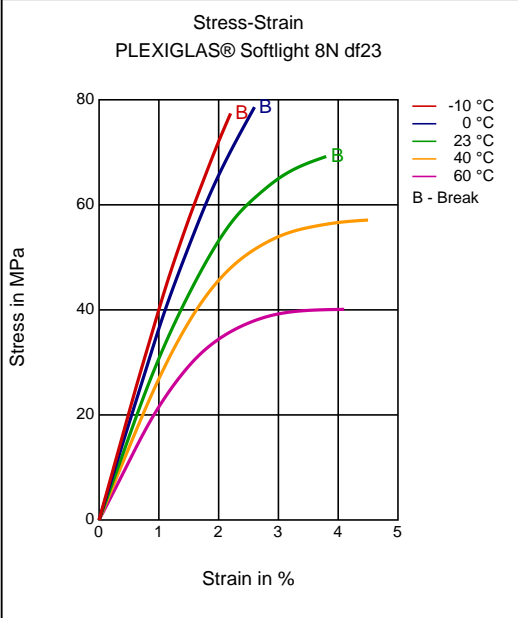
Shearstress-shear rate



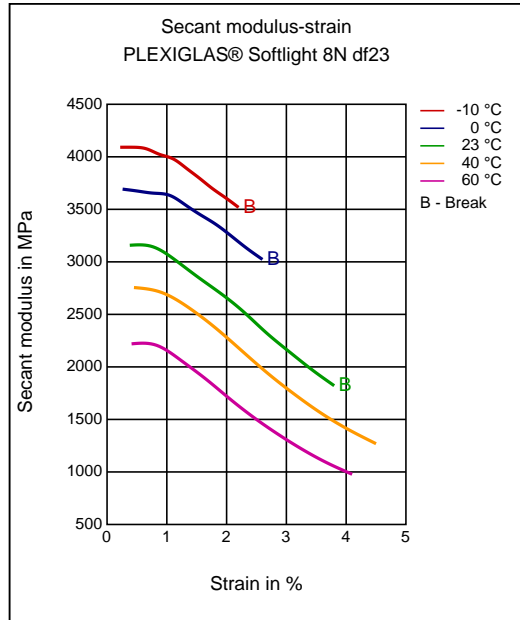
Dynamic Shear modulus-temperature



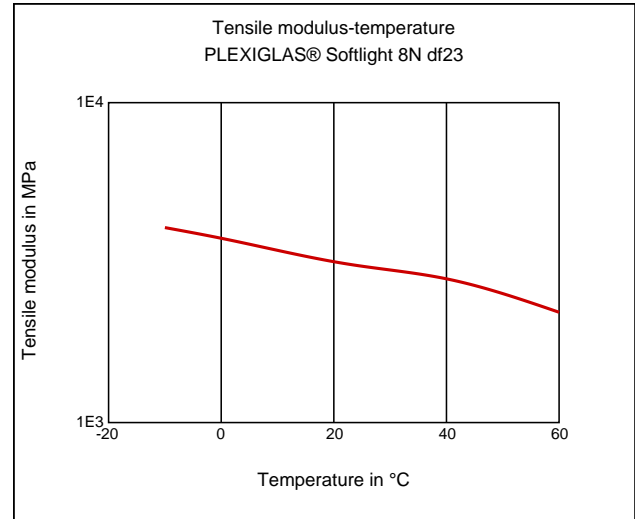
Stress-strain



#### Secant modulus-strain



#### Tensile Modulus-Temperature



#### Characteristics

##### Processing

Injection Molding

##### Delivery form

Pellets

##### Additives

Release agent

##### Special Characteristics

Light stabilized or stable to light, UV stabilized

##### Features

Light Diffusing

#### Injection Molding

##### PREPROCESSING

Predrying temperature: max. 95 °C

Predrying time in a desiccant-type drier: 2 - 3 h

##### PROCESSING

Melt temperature: 220 - 260 °C

Mold temperature: 60 - 90 °C

#### Chemical Media Resistance

##### Acids

- ✓ Acetic Acid (5% by mass) (23 °C)
- ✓ Citric Acid solution (10% by mass) (23 °C)
- ✓ Lactic Acid (10% by mass) (23 °C)
- ✓ Sulfuric Acid (38% by mass) (23 °C)
- ✓ Sulfuric Acid (5% by mass) (23 °C)

##### Bases

- ✓ Sodium Hydroxide solution (35% by mass) (23 °C)
- ✓ Sodium Hydroxide solution (1% by mass) (23 °C)
- ✓ Ammonium Hydroxide solution (10% by mass) (23 °C)

##### Hydrocarbons

- ✓ n-Hexane (23°C)
- ✓ iso-Octane (23°C)

#### Standard Fuels

- ✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23°C)
- ✓ Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C)
- ✓ Diesel fuel (pref. ISO 1817 Liquid F) (23°C)

#### Salt solutions

- ✓ Sodium Carbonate solution (20% by mass) (23°C)
- ✓ Sodium Carbonate solution (2% by mass) (23°C)

#### Other

- ✓ 50% Oleic acid + 50% Olive Oil (23°C)
- ✓ Water (23°C)

#### Disclaimer

##### Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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