PLEXIGLAS® Satinice df22 7N

PMMA — Evonik Industries AG

Product Texts

Productprofil:

PLEXIGLAS® Satinice df22 7N, based on PLEXIGLAS® 7N, is characterized by diffuse scattering of light.

Typical properties of PLEXIGLAS® molding compound are

- good flow
- high mechanical strength, surface hardness and mar resistance.

Special properties of PLEXIGLAS® Satinice df22 7N are

- very good lightdiffusion combined with excellent light transmission.

Application:

Used for injection molding items for lighting engineering applications

Example:

applications that call for light diffusion combined with optimum transmission

Processing:

PLEXIGLAS® Satinice df22 7N can be processed on injection molding machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Satinice 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
ISO Data			
Melt volume-flow rate, MVR	4.3	cm³/10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	3.8	kg	ISO 1133

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3400	MPa	ISO 527-1/-2
Stress at break	65	MPa	ISO 527-1/-2
Strain at break	2.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	17	kJ/m²	ISO 179/1eU

Thermal properties	Value	Unit	Test Standard
ISO Data			
Glass transition temperature, 10°C/min	108	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	97	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	101	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	105	°C	ISO 306
Coeff. of linear therm. expansion, parallel	63	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10

Electrical properties	Value	Unit	Test Standard
ISO Data			

Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	1E13	Ohm	IEC 60093

Other properties	Value	Unit	Test Standard
ISO Data			
Density	1190	kg/m³	ISO 1183

Material specific properties	Value	Unit	Test Standard
ISO Data			
Luminous transmittance	86	%	ISO 13468-1, -2

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	243	°C	ISO 294
Injection Molding, mold temperature	65	°C	ISO 10724
Injection Molding, injection velocity	195	mm/s	ISO 294

Characteristics

Processing
Injection Molding

Additives
Release agent

Delivery form
Pellets

Special Characteristics
Light stabilized or stable to light, U.V. stabilized or stable to weather

Other text information

Injection Molding

PREPROCESSING
Predrying temperature: max. 95 °C
Predrying time in a desiccant-type drier: 2 - 3 h
PROCESSING
Min. melt temperature: 220 - 260°C
Min. 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)