

TECHNICAL DATA SHEET

SINKRAL® B 432/E

Versalis S.p.A
ABS

Processing

Film extrusion, Profile extrusion, Sheet extrusion, Other extrusion, Blow molding, Thermoforming

Pellets

Special Characteristics

Heat stabilized or stable to heat

Delivery Form

Product Text

Product Information

Symbol according to ISO 1043-1: ABS

Designation: Thermoplastics ISO 2580-ABS 1,EGN,105-04-16-20

Sinkral B 432/E is a general purpose extrusion grade which exhibits a good balance between rigidity and toughness.

Applications:

Sheets with good surface finish (co-extruded or not and with high draw ratios) for a variety of uses in sectors such as refrigeration, sanitary, automotive, packaging and furnitures (profiles).

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	4	cm ³ /10min	ISO 1133
Temperature	220	°C	
Load	10	kg	
Density of melt	960	kg/m ³	
Spec. heat capacity of melt	2150	J/(kg K)	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	1850	MPa	ISO 527
Yield stress	45	MPa	ISO 527
Yield strain	3	%	ISO 527
Nominal strain at break	30	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	140	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	18	kJ/m ²	ISO 179/1eA

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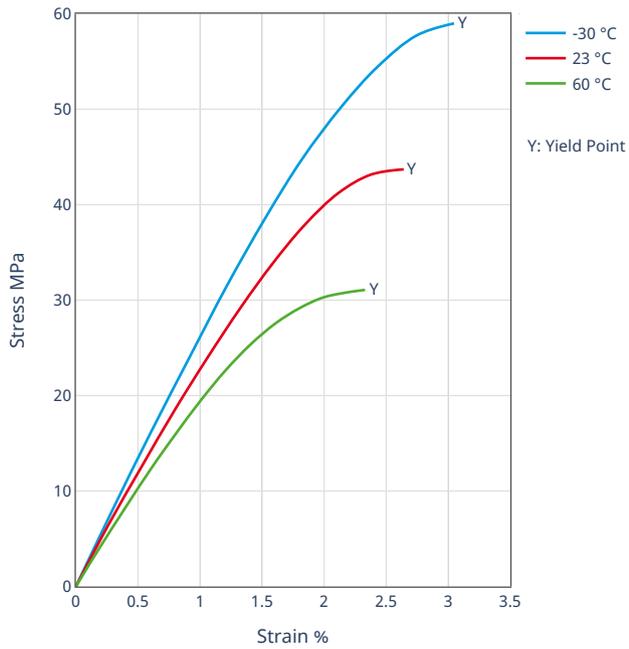
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Mechanical Properties	Value	Unit	Standard
Charpy notched impact strength, -30°C	8	kJ/m ²	ISO 179/1eA
Thermal Properties			
Thermal Properties	Value	Unit	Standard
Glass transition temperature, 10°C/min	109	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	83	°C	ISO 75-1/-2
Vicat softening temperature, B	104	°C	ISO 306
Coeff. of linear therm. expansion, parallel	90	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Electrical Properties			
Electrical Properties	Value	Unit	Standard
Relative permittivity, 1MHz	3.1		IEC 62631-2-1
Dissipation factor, 1MHz	150	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	30	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112
Other Properties			
Other Properties	Value	Unit	Standard
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1040	kg/m ³	ISO 1183
Test Specimen Production			
Test Specimen Production	Value	Unit	Standard
Processing conditions acc. ISO	2580		ISO-2
Injection molding, melt temperature	250	°C	ISO 294
Injection molding, mold temperature	60	°C	ISO 294
Injection molding, injection velocity	200	mm/s	ISO 294
Injection molding, pressure at hold	70	MPa	ISO 294

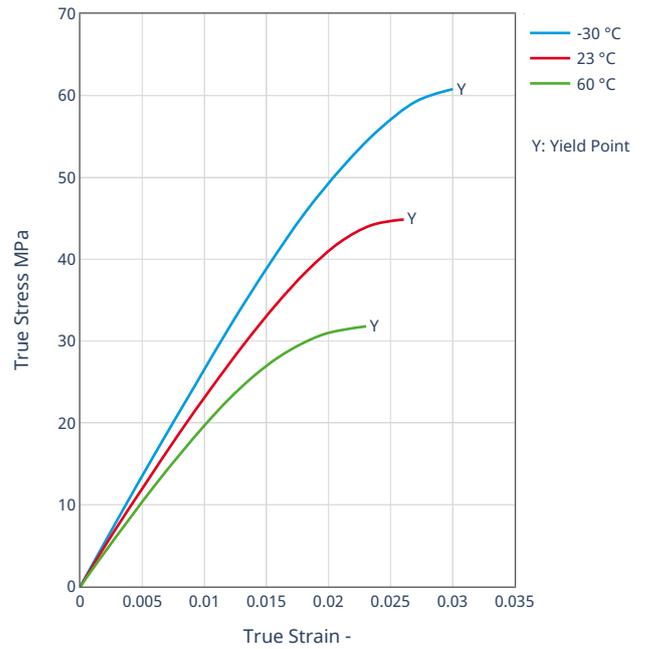
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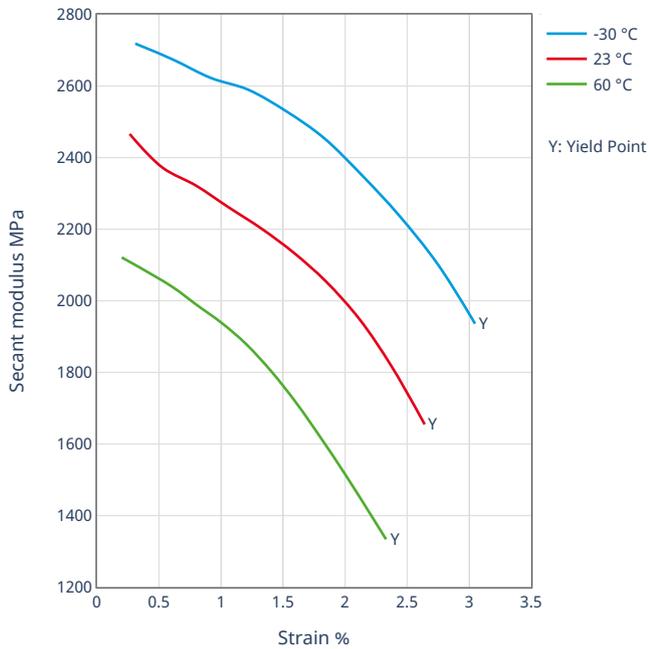
Stress-strain



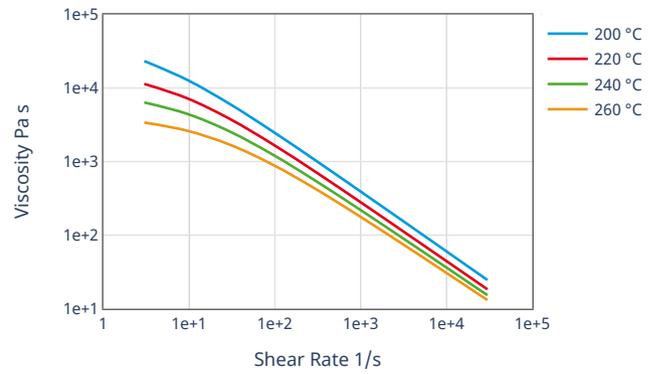
True stress-true strain



Secant modulus-strain



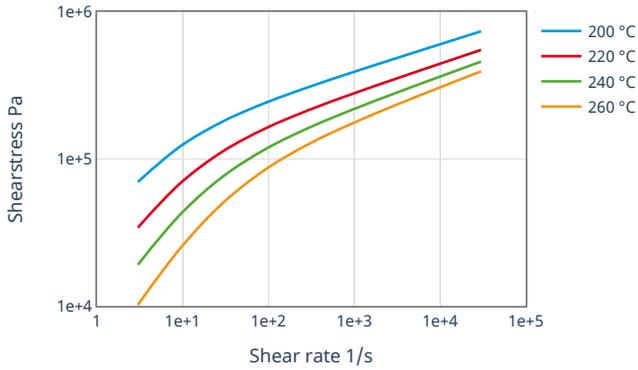
Viscosity-shear rate



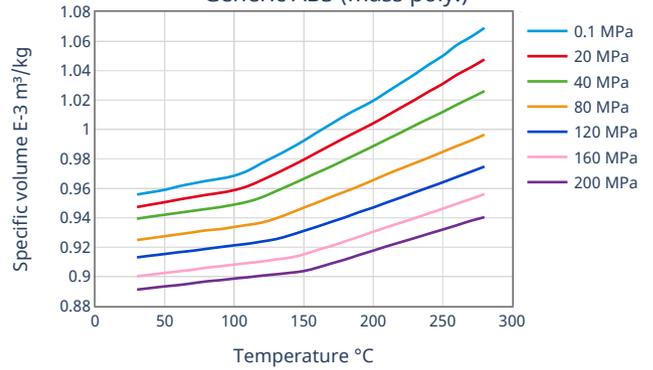
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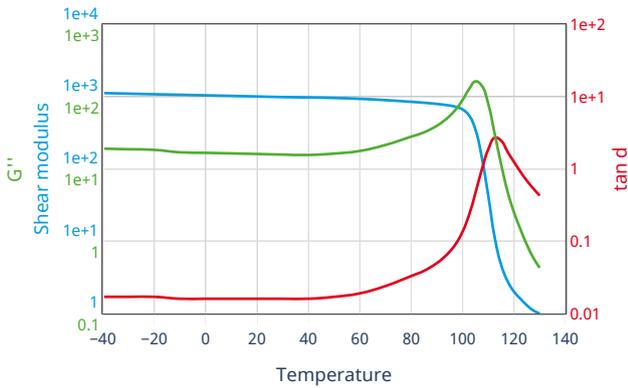
Shearstress-shear rate



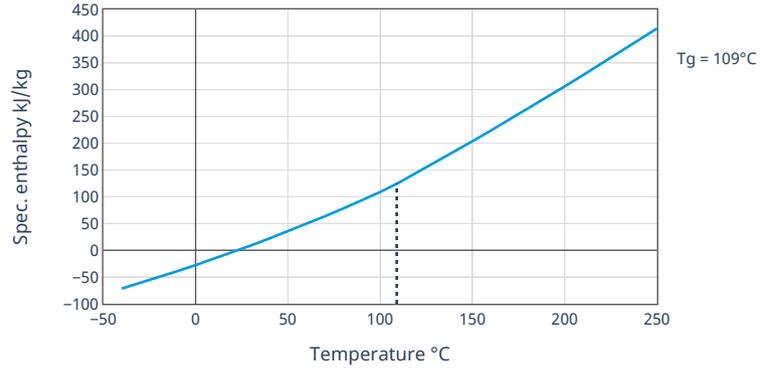
Spec. volume-Temperature (pVT)
->Generic ABS (mass poly.)



Dynamic shear modulus-temperature



Spec. enthalpy/mass-temp. (DSC)



Processing Information

Film extrusion

PREPROCESSING

Drying conditions if no venting:

- Drying temperature 80 °C
- Drying time 2 - 4 h
- Maximum water content 0.2 %

PROCESSING

- Typical processing temperature range:
- Melt temperature 190 - 230 °C

Other extrusion

Other extrusion

PREPROCESSING

Drying conditions if no venting:

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Drying temperature 80 °C
Drying time 2 - 4 h
Maximum water content 0.2 %

PROCESSING

Typical processing temperature range:

Melt temperature 190 - 230 °C

Profile extrusion

PREPROCESSING

Drying conditions if no venting:

Drying temperature 80 °C
Drying time 2 - 4 h
Maximum water content 0.2 %

PROCESSING

Typical processing temperature range:

Melt temperature 190 - 230 °C

Sheet extrusion

PREPROCESSING

Drying conditions if no venting:

Drying temperature 80 °C
Drying time 2 - 4 h
Maximum water content 0.2 %

PROCESSING

Typical processing temperature range:

Melt temperature 190 - 230 °C