Stanyl® Diablo OCD2100 BK27021

PA46-GF40 Envalior

Product Texts

40% Glass Reinforced, Heat Stabilized

ISO 1043 PA46-GF40

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.5 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	13000 / 7000	MPa	ISO 527
Stress at break	210 / 125	MPa	ISO 527
Strain at break	3 / 8	%	ISO 527
Charpy impact strength, +23°C	90 / 105	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	65 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	15 / 25	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	12 / 12	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	282 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	70 / *	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	256 / *	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	270 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	25 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	50 / *	E-6/K	ISO 11359-1/-2

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Comparative tracking index	300 / -	-	IEC 60112

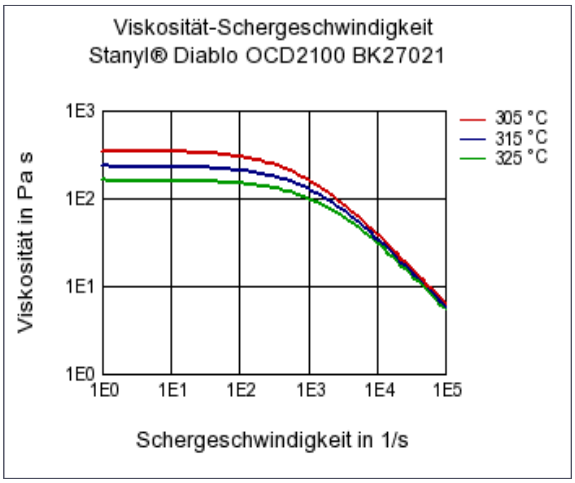
Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	6.7 / *	%	Sim. to ISO 62
Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1480 / -	kg/m³	ISO 1183

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	155 / *	cm³/g	ISO 307, 1157, 1628

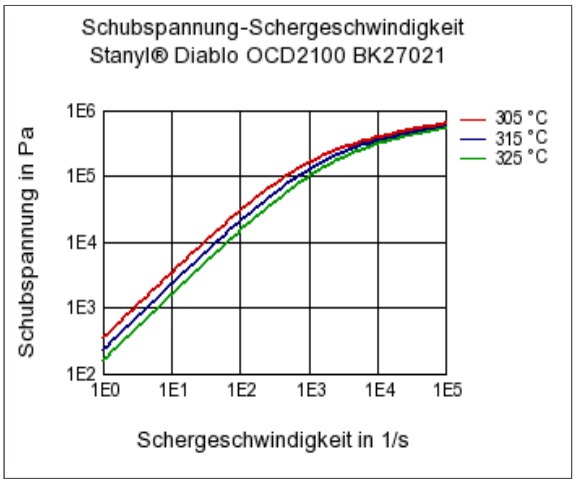
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1320	kg/m³	-
Thermal conductivity of melt	0.314	W/(m K)	-
Spec. heat capacity of melt	2130	J/(kg K)	-
Eff. thermal diffusivity	1.12E-7	m²/s	-

Diagrams

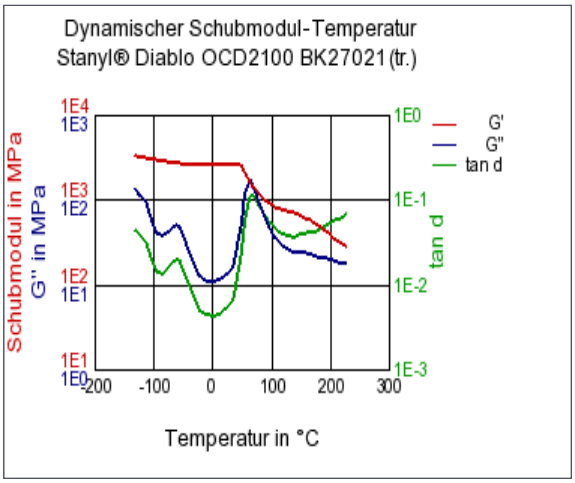
Viscosity-shear rate



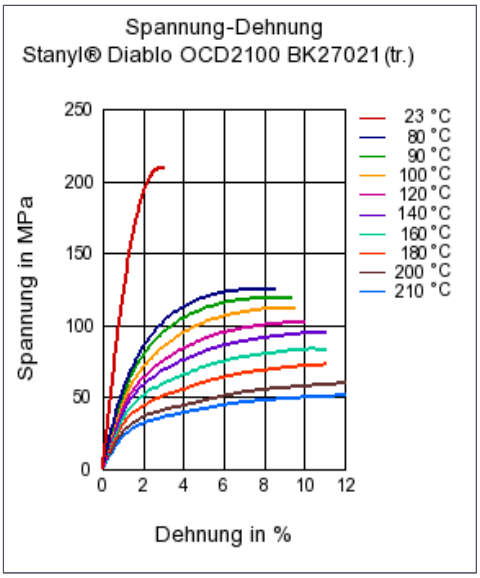
Shearstress-shear rate



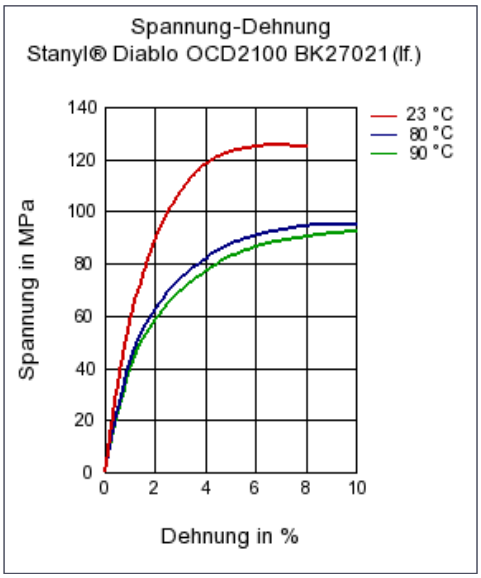
Dynamic Shear modulus-temperature



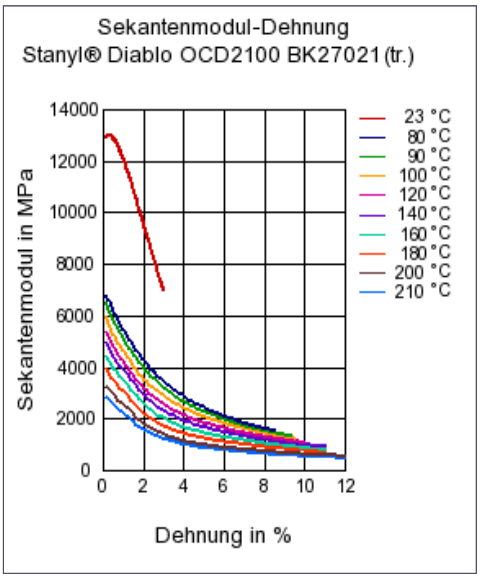
Stress-strain



Stress-strain



Secant modulus-strain



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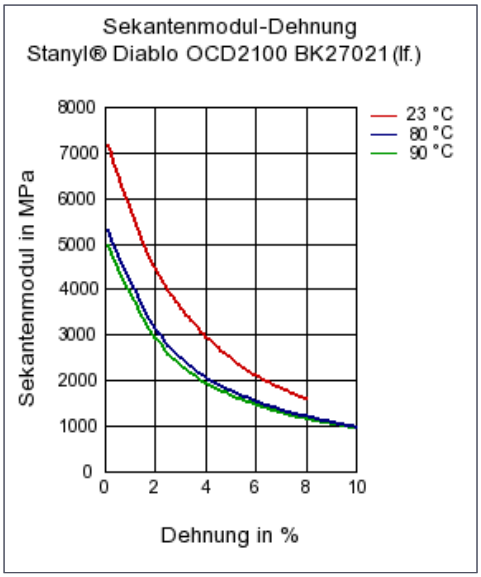
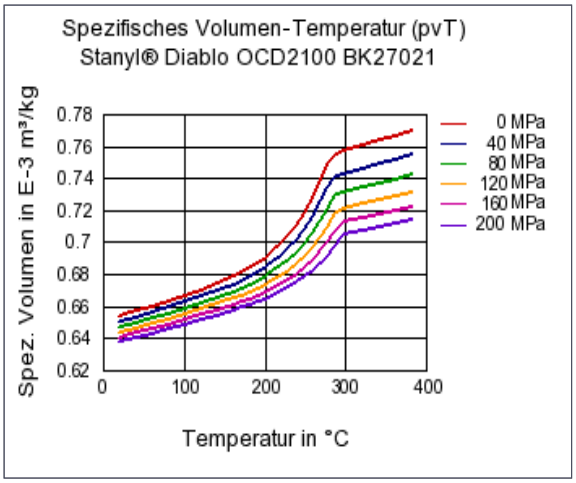
Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding

Additives
Lubricants, Release agent

Delivery form
Pellets, Black

Special Characteristics
Heat stabilized or stable to heat

Other text information

Injection Molding

Injection Molding Recommendations
Hot runner recommendations for molding high heat performance Engineering Materials
Steel recommendations for molds screws and barrels
Supporting document for Stanyl quality processing
Trouble shooting guideline for injection molding

Chemical Media Resistance

Alcohols

- Ethanol (23°C)

Hydrocarbons

- Toluene (23°C)

Ketones

- Acetone (23°C)

Ethers

- Diethyl ether (23°C)

Other

- Ethyl Acetate (23°C)
- Water (23°C)