

Stanyl® Diablo OCD2300 BLK

PA46-GF50

50% Glass Reinforced, Heat Stabilized

Print Date: 2019-08-22

Properties	Typical Data	Unit	Test Method
Rheological properties	dry / cond		
Molding shrinkage (parallel)	0.4 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
Mechanical properties	dry / cond		
Tensile modulus	17000 / 8000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	6700 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	5800	MPa	ISO 527-1/-2
Tensile modulus (180°C)	5300	MPa	ISO 527-1/-2
Tensile modulus (200°C)	4300	MPa	ISO 527-1/-2
Stress at break	240 / 135	MPa	ISO 527-1/-2
Stress at break (120°C)	110 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	85	MPa	ISO 527-1/-2
Stress at break (180°C)	75	MPa	ISO 527-1/-2
Stress at break (200°C)	60	MPa	ISO 527-1/-2
Strain at break	2.4 / 6.3	%	ISO 527-1/-2
Strain at break (120°C)	7.5 / -	%	ISO 527-1/-2
Strain at break (160°C)	8.5	%	ISO 527-1/-2
Strain at break (180°C)	9	%	ISO 527-1/-2
Strain at break (200°C)	9.5	%	ISO 527-1/-2
Flexural modulus	17000 / 8000	MPa	ISO 178
Flexural modulus (120°C)	6900	MPa	ISO 178
Flexural modulus (160°C)	6100	MPa	ISO 178
Flexural modulus (180°C)	5600	MPa	ISO 178

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Properties	Typical Data	Unit	Test Method
Flexural modulus (200°C)	4500	MPa	ISO 178
Flexural strength	370 / 205	MPa	ISO 178
Flexural strength (120°C)	145	MPa	ISO 178
Flexural strength (160°C)	110	MPa	ISO 178
Flexural strength (180°C)	95	MPa	ISO 178
Flexural strength (200°C)	75	MPa	ISO 178
Charpy impact strength (+23°C)	95 / 110	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	80 / 95	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	17 / 30	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 14	kJ/m ²	ISO 179/1eA

Thermal properties

dry / cond

Melting temperature (10°C/min)	275 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	260 / *	°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)	0.25 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.4 / *	E-4/°C	ISO 11359-1/-2

Other properties

dry / cond

Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1620 / -	kg/m ³	ISO 1183