

Stanyl® HGR3-W (P1120D)

PA46

Heat Stabilized, Wear and Friction Modified

Sustainability

Bio-based – mass balanced

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	2 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	2 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	2500 / 700	MPa	ISO 527-1/-2
Tensile modulus (120°C)	560 / -	MPa	ISO 527-1/-2
Yield stress	75 / 40	MPa	ISO 527-1/-2
Yield stress (120°C)	35	MPa	ISO 527-1/-2
Nominal strain at break	35 / -	%	ISO 527-1/-2
Nominal strain at break (120°C)	>50	%	ISO 527-1/-2
Stress at break	65 / *	MPa	ISO 527-1/-2
Stress at break (120°C)	45 / -	MPa	ISO 527-1/-2
Flexural modulus	2350 / 650	MPa	ISO 178
Flexural strength	93 / 19	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	22 / 130	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 16	kJ/m ²	ISO 179/1eA

Thermal properties

dry / cond



Property Data (Provisional)

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Properties	Typical Data	Unit	Test Method
Melting temperature (10°C/min)	295 / *	°C	ISO 11357-1/-3
Coeff. of linear therm. expansion (parallel)	0.9 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.1 / *	E-4/°C	ISO 11359-1/-2
Other properties			
	dry / cond		
Humidity absorption	3.7 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183

