Property Data (Provisional)

Envalior
Imagine the Future

Stanyl® HGR3–W (P1120D)

PA46

Heat Stabilized, Wear and Friction Modified

Print Date: 2024–09–20

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/m²	ISO 179/1eU
Charpy impact strength (–30°C)	N / N	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	22 / 130	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	14 / 16	kJ/m²	ISO 179/1eA

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
THERMAL PROPERTIES	DRY / COND		
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/m³	ISO 1183