Stanyl® HGR2 BK00001

(PA46+PTFE) Envalior

Product Texts

Heat Stabilized, Wear and Friction Modified

ISO 1043 (PA46+PTFE)

Stanyl® HGR2 is a friction-modified high heat polyamide designed for friction-reduction in valve timing-chain systems that offers excellent wear & friction properties in combination with low friction.

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**3100 / 900**	MPa	ISO 527
[C] Yield stress	**90 / 50**	MPa	ISO 527
[C] Yield strain	**17 / 30**	%	ISO 527
[C] Nominal strain at break	**25 / >50**	%	ISO 527
[C] Charpy impact strength, +23°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**150 / N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**9 / 15**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**6 / 6**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**295 / ***	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**75 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**190 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**290 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**290 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**85 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**110 / ***	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**11.4 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**3.2 / ***	%	Sim. to ISO 62
[C] Density	**1260 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Viscosity number	**190 / ***	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Black

Additives
Lubricants

Special Characteristics
Platable, Heat stabilized or stable to heat

Features
Tribologic Grade

Regional Availability
North America, Europe, Asia Pacific

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