

ECOMID® ARX H GF30 BK 9005/H

ECOMID®

General purpose grade, suitable for many technical applications. Medium term heat ageing resistant.

Product information

Resin Identification	PA66-GF30	ISO 1043
Part Marking Code	>PA66-GF30<	ISO 11469
Continuous Service Temperature	125 °C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	145 / *	cm ³ /g	ISO 307, 1628
Moulding shrinkage range, parallel	0.3 - 0.7	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.7 - 1.1	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	8800 / 6300 ^[C]	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	130 / 88 ^[C]	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.6 / 4 ^[C]	%	ISO 527-1/-2
Flexural modulus	7950 / -	MPa	ISO 178
Flexural strength	200 / -	MPa	ISO 178
Charpy impact strength, 23 °C	45 / 60 ^[C]	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30 °C	40 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23 °C	6.5 / 9 ^[C]	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30 °C	5.5 / -	kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23 °C	6.6 / -	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30 °C	5.4 / -	kJ/m ²	ISO 180/1A
Ball indentation hardness, H 961/30	185 / -	MPa	ISO 2039-1
Poisson's ratio	0.34 / 0.35 ^[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	260 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	229 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	250 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50 °C/h 50N	238 / *	°C	ISO 306
Coefficient of linear thermal expansion (CLTE), parallel	22.9 ^[1] / *	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	117 ^[1] / *	E-6/K	ISO 11359-1/-2

[1]: Temperature range: -30 °C to 150 °C

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	31.2	mm/min	ISO 3795 (FMVSS 302)

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.5 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.4 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m ³	ISO 1183

Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.15 %
Melt Temperature Optimum	285 °C
Min. melt temperature	275 °C
Max. melt temperature	295 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	70 °C
Max. mould temperature	120 °C
Ejection temperature	220 °C

Characteristics

Processing	Injection Moulding
Delivery form	Granules
Special characteristics	Heat stabilised or stable to heat

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
VW Group	VW 50133	*Best Fitting Grade To PA66-6-A, Not Officially Approved