

COMMERCIAL / NON CORE

TECHNYL A 216HR V25 BK

(Previously DOMAMID 66G25HR1 BK)

Polyamide 66, 25% glass fiber reinforced, hydrolisis stabilized, for injection moulding

General

Feature	Hydrolisis stabilized	
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF25
ISO 16396 designation	PA66,GF25,M1W,S14-080

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.32
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.3 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	0.8 - 0.9
Water absorption, saturation			%	5.6
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8000 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	150 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	2.7 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	230 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	50 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	7 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	40 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	6.5 / -

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	259
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	245
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	250

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013

Burning behaviour

Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.
*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended melt temperature	270 - 290 °C
Recommended mould temperature	90 - 110 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

Processing conditions

Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 / 1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 / 1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

Disclaimer

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