

TECHNICAL DATA SHEET

TECHNYL A 219 V15 YL 1078  
(Previously DOMAMID 66G15H1 YL11078)

Polyamide 66, 15% glass fiber reinforced, heat-aging stabilized, for injection moulding

General

Feature	UL HB	Heat-aging stabilized
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF15
ISO 16396 designation	PA66,GF15,M1H,S14-060

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm <sup>3</sup>	1.23
Water absorption	24 hr, 23°C	ISO 62	%	1 - 1.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.4 - 0.6
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1

Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	6000 / 3950
Stress at break	5 mm/min	ISO 527-1/-2	MPa	100 / 65
Strain at break	5 mm/min	ISO 527-1/-2	%	1.85 / 7.7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	5100 / 3400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	160 / 95
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	25 / 45
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	4 / 6
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	20 / 45
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	3.7 / 5.5

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	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	245
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	230
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	245

## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Comparative tracking index	Solution A	IEC 60112	V	500
CTI performance level category		Sol A		PLC 1

## Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → <a href="#">E170540-225455</a>			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	650
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.

## 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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