

TECHNICAL DATA SHEET

## TECHNYL C 116 RD 3113

### DOMAMID 6LV RD33113

Polyamide 6, improved flowability, for injection moulding

#### General

Certifications	RoHS	UL listed product
Polymer type	PA6	
Feature	improved flowability not heat stabilized	UL 94 V2
Processing technology	injection moulding	

#### Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M,S12-030

Condition	Standard	Unit	Value
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#### Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm <sup>3</sup>	1.14	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.3 - 3.4
Water absorption	24 hr, 23°C	ISO 62	%	1.9 - 2.0
Water absorption, saturation			%	9.1
Molding shrinkage, parallel	ISO 294-4, 2577	%		0.9 - 1.1
Molding shrinkage, normal	ISO 294-4, 2577	%		1.0 - 1.2
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm <sup>3</sup> /10 min	225.0
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	125.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3100 / 1000
Strain at break	50 mm/min	ISO 527-1/-2	%	20 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / 40
Yield strain	50 mm/min	ISO 527-1/-2	%	4 / 20
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2700 / 850
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / 35
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	4 / 20
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	4 / 20
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

\*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	175
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	65
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	200

Condition	Standard	Unit	Value
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## Burning behaviour

UL Yellow Card availability 1	<a href="#"><b>Click here to have access to the UL Yellow Card availability 1 -&gt; QMFZ2.E170540</b></a>			
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Flammability, 3.0 mm	3.0 mm	UL 94		V2
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	>= 850
Glow-wire ignition temperature, GWIT	1-3 mm	IEC 60695-2-13	°C	725
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E16
Surface resistivity		IEC 62631-3-1	ohm	1.0E14
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0

## Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	230 - 250 °C
Recommended mould temperature	60 - 90 °C

## 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 unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (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.