

TECHNICAL DATA SHEET

## DOMONYL 1850R33N3

Polyamide 6, 33% glass fiber reinforced, nucleated, for injection moulding. For America availability only.

### General

Polymer type	PA6		
Certifications	RoHS	EC 1907/2006 (REACH)	
Feature	nucleated high stiffness	good strength	
Forms	pellets		
Processing technology	injection moulding		

### Product identification

ISO 1043 abbreviation	PA6-GF33
ISO 16396 designation	PA6,GF33,M,S14-100

Condition	Standard	Unit	Value
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### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.4
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.2
Molding shrinkage, normal		ISO 294-4, 2577	%	0.6 - 0.7

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12000 / 6700
Stress at break		ISO 527-1/-2	MPa	190 / 120
Strain at break		ISO 527-1/-2	%	3.8 / 7.5
Yield stress		ISO 527-1/-2	MPa	190 / 120
Yield strain		ISO 527-1/-2	%	3.5 / 6.9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	10000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	310 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	100 / 110
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	13 / 21

\*: **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, 1.80 MPa	1.80 MPa	ISO 75	°C	220
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	220

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100 mm/min

### Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Suggested max moisture	0.2 %

### 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.

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## 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.