

TECHNICAL DATA SHEET

DOMONYL 1820R35H BK-1

DOMONYL 1820R35H BK-1 is a polyamide 6, reinforced with 35% of glass fibre, heat stabilized, for injection moulding. For America availability only.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	heat-aging stabilized	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF35
ISO 16396 designation	PA6,GF35,MH,S14-100

Condition	Standard	Unit	Value
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Physical properties

	Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.42
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal	ISO 294-4, 2577	%	0.7 - 0.8

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12000 / 5900
Stress at break		ISO 527-1/-2	MPa	160 / 89
Strain at break		ISO 527-1/-2	%	2.3 / 6.4
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	10000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	240 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	57 / 77
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	8 / 18

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	220

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

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) - DOMO Engineering Plastics

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Injection advice

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.