

CAMPUS® foglio dati

CELANYL® B3 S30 BK 9005/M - PA6

Celanese



Proprietà Reologiche	secco/cond	Unità	Norma del test
Ritiro di stampaggio, parallelo	0.8 / *	%	ISO 294-4, 2577
Ritiro di stampaggio, perpendicolare	0.9 / *	%	ISO 294-4, 2577
Proprietà Meccaniche	secco/cond	Unità	Norma del test
Modulo a trazione	6500 / -	MPa	ISO 527-1/-2
Carico unitario a rottura	70 / -	MPa	ISO 527-1/-2
Deformazione a rottura	3 / -	%	ISO 527-1/-2
Resistenza all'urto Charpy, +23°C	35 / -	kJ/m ²	ISO 179/1eU
Resist. urto Charpy con intaglio, +23°C	3.2 / -	kJ/m ²	ISO 179/1eA
Proprietà Termiche	secco/cond	Unità	Norma del test
Temp.di inflessione sotto carico, 0.45 MPa	205 / *	°C	ISO 75-1/-2
Altre Proprietà	secco/cond	Unità	Norma del test
Assorbimento d'acqua	6.5 / *	%	Sim. alla ISO 62
Assorbimento d'umidità	1.7 / *	%	Sim. alla ISO 62
Massa volumica	- / 1360	kg/m ³	ISO 1183

Caratteristiche

Processabilità e Forma di Forni

Stampaggio ad Iniezione

Disponibilità geografica

Europa

Forma fisica disponibile

Granuli

Altre informazioni

Stampaggio ad Iniezione

PA materials, stocked in a moisture-proof packaging, can be processed without drying; however, it is always recommended drying the product that comes from a large package (e.g. Octabin). The moisture content suggested for the injection molding process should be lower than 0.15%, according to the grade and to the molded part characteristics. The materials containing flame retardants should have moisture content below 0.10%. Red phosphorous containing grades must always be dried below 0.08%. The drying time depends on the moisture content and the drying conditions. Typically, 4-8 hours at 80-90°C using dehumidified air (dew point of -20°C) are suitable conditions for a starting moisture content of 0.20%-0.40%.

The following conditions apply to a standard injection molding process. Machine temperatures: barrel 265-290°C (PA66), 235-270°C (PA6), nozzle and hot runners up to 300°C (up to 290°C products with flame retardants). Mold temperatures: 60-80°C, (80-100°C highly reinforced grades). Back pressure: typically, 5-10 bar (hydraulic pressure). Temperatures exceeding 300°C and long residence time could lead to additives degradation and brittleness of the material. In case of gas generation in the melt, please verify moisture content and processing temperatures. Usage of regrind is possible depending on the molded part characteristics. For further details, please refer to the document 'Instructions for injection molding' or contact our technical support team.

PA materials reach their final performance with a water content of about 1.5 to 3.5% by weight, depending on the type. This percentage corresponds to the point of equilibrium between the rates of absorption and desorption of moisture. After molding, in favorable environmental conditions, a part can quickly absorb moisture up to 0.5-1.0%, while the equilibrium will be reached during its life. A conditioning treatment can accelerate further the initial water absorption of the molded parts. Conditioning is usually carried out in hot and humid environment (for example 50°C, 100% RH), inside climatic chambers. Slight dimensional variations (increase in volume due to the water absorbed) must be considered, especially in unfilled grades. Post-treatments of parts may also include the annealing (60-80°C in oven, up to four hours). This procedure can be useful to relax any internal stresses.

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