

Product Information

Preliminary Product Information

VESTAMID® NRG 6001 natural color

High viscosity, plasticized, impact-modified, heat- and light-stabilized PA 12 compound for extrusion

VESTAMID®NRG 6001 is a plasticized PA 12 compound with heat and light stabilizers for the extrusion of flexible tubing and hoses especially for oil and petrochemical applications (e.g. for Umbilicals).

VESTAMID®NRG 6001 is characterized by easy processing and good dimensional control during pipe extrusion, especially when processing of multi layer tubes. This PA12 compound is optimized for excellent bonding to Neoflon™ EFEP RP-5000 (a registered trademark of Daikin Industries)

Properties of compounds based on polyamide 12 vary little with changing humidity due to low moisture absorption

Parts made of the described semi-crystalline material are characterized by exceptional impact strength, low coefficient of sliding friction and good chemical resistance.

VESTAMID®NRG 6001 is supplied ready for use in moisture-proof bags.

The recommended process temperature for extrusion is 220°C to 260°C.

Property	Test method		Unit	VESTAMID® NRG 6001 natural color	
	international	national			
Density	23°C	ISO 1183	DIN EN ISO 1183	g/cm ³	1.02
Melting range		ISO 11357			
DSC	2 nd heating			°C	172
Tensile test		ISO 527-1	DIN EN ISO 527-1		
Stress at break		ISO 527-2	DIN EN ISO 527-2	MPa	44
Strain at break				%	> 150
Tensile modulus		ISO 527-1	DIN EN ISO 527-1	MPa	390
		ISO 527-2	DIN EN ISO 527-2		
CHARPY impact strength		ISO 179/1eU	DIN EN ISO 179/1eU		
	23°C			kJ/m ²	N ¹⁾
	0°C			kJ/m ²	N ¹⁾
	-30°C			kJ/m ²	N ¹⁾
	-40°C			kJ/m ²	N ¹⁾
CHARPY notched impact strength		ISO 179/1eA	DIN EN ISO 179/1eA		
	23°C			kJ/m ²	125 P ¹⁾
	0°C			kJ/m ²	94 P ¹⁾
	-30°C			kJ/m ²	7.2 C ¹⁾
	-40°C			kJ/m ²	5.4 C ¹⁾
Temperature of deflection under load		ISO 75-2	DIN EN ISO 75-2		
Method B	0.45 MPa			°C	118
Vicat softening temperature		ISO 306	DIN EN ISO 306		
Method A	10 N			°C	164
Method B	50 N			°C	124
Tensile test (pipe test specimens)		ISO 527	DIN EN ISO 527		
Stress at yield				MPa	26
Strain at yield				%	30
Strain at break				%	> 150
Hoop stress at burst	23°C		DIN 53758	MPa	23

Pigmentation may affect the values. Special compound optimized for excellent bonding to NEOFロン EFEP RP-5000 (a registered trademark of DAIKIN Industries)

¹⁾ C = Complete break, incl. hinge break H
N = No break
P = Partial break