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High Performance Polymers

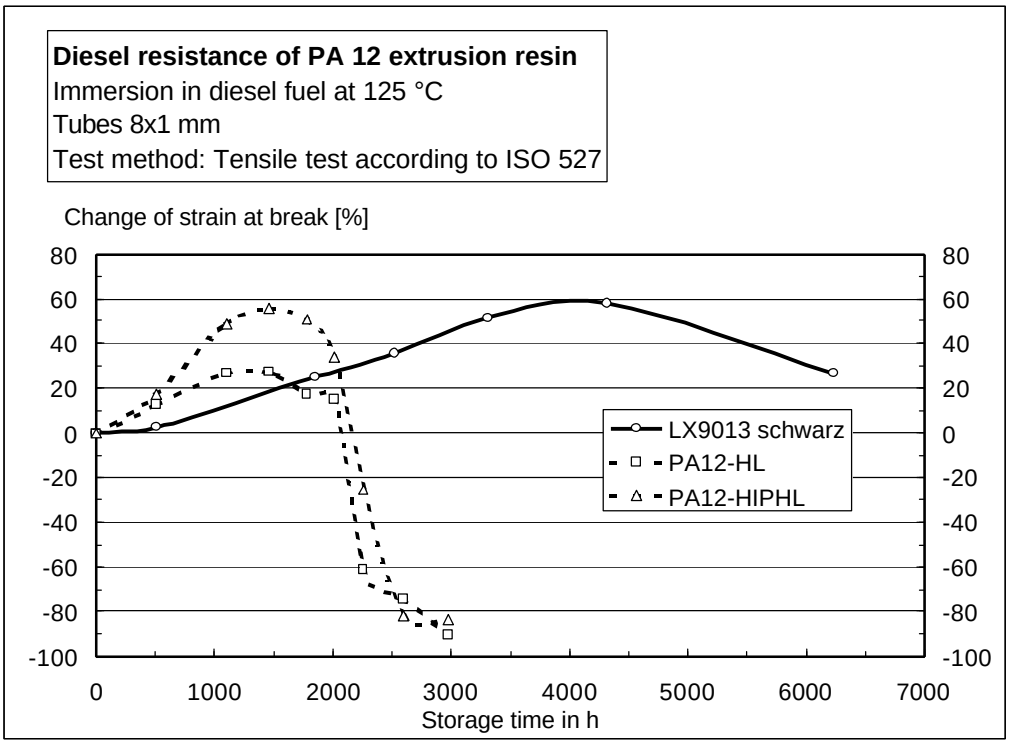
VESTAMID® LX9013

VESTAMID LX9013 is a high-viscosity, plasticized compound for extrusion with an extraordinary long-term heat resistance

VESTAMID LX9013 is a plasticized polyamide 12 compound with an especially high long-term resistance under thermal load.

Parts made of this material absorb only little moisture, thus leading to nearly unaffected dimensions and properties at changing ambient conditions.

VESTAMID LX9013 is suited to produce flexible tubes that are impact-resistant also at low temperatures. These tubes are permanently exposed to higher temperatures, e.g., in the engine compartment of motor vehicles, particularly as fuel lines in diesel engined vehicles. The advantages of the compound to comparable standard grades are strongly obvious in storage tests with diesel fuel (see the figure).



The material corresponds to the extrusion compound PA12-HIPHL, grade1 acc. DIN 73378 and meets the requirements acc. DIN 74324 (black), ISO 7628 and SAE J844.

VESTAMID LX9013 is supplied as dry granules in moisture-proof packaging. For guidance processing VESTAMID LX9013 please follow the general recommendation in our brochure „Handling and Processing of VESTAMID“.

Further information can be obtained from the Technical Marketing of the High Performance Polymers Business Unit.

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Property			Test method	Unit	VESTAMID LX9013
Density			ISO 1183	cm³/g	1.02
Melting point (2. heating)			ISO 3146	°C	172
Tests on injection-molded specimen					
Tensile test			ISO 527		
Stress at yield				MPa	no yield point
Strain at yield				%	
Stress at 50% strain				MPa	30
Stress at break				MPa	43
Nominell strain at break				%	> 150
Tensile modulus	1 mm/min		ISO 527	MPa	400
CHARPY impact strength	23 °C		ISO 179/1eU	kJ/m²	N[1)]
	-30 °C			kJ/m²	N[1)]
CHARPY notched impact strength	23 °C		ISO 179/1eA	kJ/m²	140 P[1)]
	-30 °C			kJ/m²	7 C[1)]
Test on tubes (8 x 1 mm)					
Impact test	-40 °C	as molded	ISO 7628-2/	J	N[1)]
	23 °C	72 h / 150 °C	DIN 73378	J	N[1)]
	-40 °C	as molded	SAE J2260		N[1)]
	-40 °C		SAE J844		
		as molded			N[1)]
		after 24 h / 110 °C			N[1)]
		2 h in boiling water			N[1)]
Burst test Hoop stress	23 °C		DIN 53758	MPa	24.8

[1)] N = No break
C = Complete break, encl. hinge break H
P = Partial break

® = registered trademark

Degussa AG
High Performance Polymers
45764 MARL
GERMANY
Fax: +49 2365 49-5992
E-mail: degussa-hpp@degussa.com