Product Information

VESTAMID® NRG 2902 BK

FOR GAS PIPE FITTINGS



VESTAMID® NRG 2902 BK is a high viscosity, heat stabilized and UV stabilized compound, based on PA12, with exceptional mold release properties. Additionally, VESTAMID® NRG 2902 BK is nucleated to reduce the cycle time and shrinkage of molded parts. Parts made of this semi-crystalline material are characterized by good impact strength, high abrasion resistance, low friction and good chemical resistance. In general, mechanical properties of compounds based on PA 12 vary little with changing humidity due to their low moisture absorption.

VESTAMID® NRG 2902 BK is suitable for molding gas pipe fitings. Polyamide 12 is a high performance thermoplastic polymer with increased performance characteristics that translates into safe operations over the life of the installed pipeline. It has a considerable record of safe and proven experience in many demanding applications, including fuel lines in passenger cars, air brake tubing in trucks and off-shore applications.

A processing temperature between 230 °C and 260 °C - in some cases up to 280 °C - is recommended during the injection molding process.The mold temperature should be within a range of 60 °C to 100 °C. It is recommended to dry the material before processing for 2 to 4 hours at 80 °C.

VESTAMID® NRG 2902 BK is delivered as granules in ready-to-process condition in moisture-tight packaging. Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

The results presented were generated from a small number of production lots. They are therefore provisional and not yet the result of a statistical analysis.

FOR MORE INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM
OR VISIT OUR PRODUCT AT WWW.VESTAMID.COM

Key Features

Industrial Sector
Energy, Oil and Gas

Processing
Injection molding

Delivery form
Pellets, Granules

Optics
Opaque

Resistance to
Heat (thermal stability), UV / light / weathering

Additives
Lubricant, Release agent

Mechanical properties ISO	Value	Unit	Test Standard
Tensile modulus	**1280**	MPa	ISO 527
Tensile strength	**48**	MPa	ISO 527

Yield stress	**38**	MPa	ISO 527
Yield strain	**12**	%	ISO 527
Stress at 50% strain	**32**	MPa	ISO 527
Nominal strain at break, εtB	**245**	%	ISO 527
Charpy notched impact strength, +23°C	**51**	kJ/m²	ISO 179/1eA
Type of failure	**P**	-	-

Thermal properties	Value	Unit	Test Standard
Melting temperature	**177**	°C	ISO 11357-1/-3

Physical properties	Value	Unit	Test Standard
Density	**1010**	kg/m³	ISO 1183
Moisture content	**0.04**	Gew.-%	ISO 15512

Rheological properties	Value	Unit	Test Standard
Melt volume-flow rate, MVR	**38**	cm³/10min	ISO 1133
Temperature	**240**	°C	-
Load	**10**	kg	-

Characteristics

Processing
Fittings

Additives
Release agent

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