VESTAMID®

Product Information

VESTAMID® LX9042 NC

HEAT STABILIZED POLYAMIDE 12 COMPOUND

VESTAMID® LX9042 NC is an easy mold release and heat stabilized compound. Due to its highly effective mold release agents, VESTAMID® LX9042 NC is suitable for the efficient production of injection molded parts with very short cycle times.

In addition, VESTAMID® LX9042 NC is nucleated to reduce the cycle time even further and/or to reduce the shrinkage.

Properties of compounds based on Polyamide12 vary little with changing humidity due to their low moisture absorption.

Parts made of this semicrystalline material are characterized by exceptional impact strength, low coefficient of friction and good chemical resistance.

VESTAMID® LX9042 NC is supplied as cylindrical granules, ready for processing, in moisture-proof bags.

The use of colorants may affect property values.

The results shown have been generated from a low number of production lots. Therefore, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

Key Features

Industrial Sector
Sustainable, Industry and Engineering

Delivery form
Pellets, Granules

Sustainability
Sustainable electricity

Resistance to
Heat (thermal stability)

Processing
Injection molding

Additives
Release agent, Unfilled

LCA-values	dry	Unit	Test Standard
LCA name of certificate	VESTAMID® L Compound low	-	ISO 14040, 14044

LCA certifier	TÜV Rheinland	-	ISO 14040, 14044
Blue water consumption	**25.7**	kg	ISO 14040, 14044
Global Warming Potential incl. bio. C incl. LUC	**6.1**	kg CO_2 eq./kg	ISO 14040, 14044
Global Warming Potential excl. bio. C incl. LUC	**6.1**	kg CO_2 eq./kg	ISO 14040, 14044
Land use (ReCiPe 2016)	**0.1**	Annual crop eq. y	ISO 14040, 14044
GWP savings as compared to 2023 reference	**-2.5**	kg CO_2 eq./kg	ISO 14040, 14044

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile modulus	**232000 / -**	psi	ISO 527
Tensile strength	**6820 / -**	psi	ISO 527
Yield stress	**6820 / -**	psi	ISO 527
Yield strain	**11 / -**	%	ISO 527
Stress at 50% strain	**5220 / -**	psi	ISO 527
Stress at break	**8990 / -**	psi	ISO 527
Nominal strain at break, tB	**305 / -**	%	ISO 527
Charpy impact strength, +23°C	**N / -**	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, +23°C	**2.19 / -**	ftlb/in²	ISO 179/1eA
Type of failure	**C / -**	-	-
Charpy notched impact strength, -30°C	**2.19 / -**	ftlb/in²	ISO 179/1eA
Type of failure	**C / -**	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	**356 / ***	°F	ISO 11357-1/-3
Vicat softening temperature A, 10 N, 50 K/h	**351 / ***	°F	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	**309 / ***	°F	ISO 306
Melting Temperature	**356**	°F	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Water absorption	**0.04 / ***	%	Sim. to ISO 62

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	**9 / ***	cm^3/10min	ISO 1133
Temperature	**220 / ***	°C	-
Load	**2.16 / ***	kg	-
Molding shrinkage, parallel	**0.7 / ***	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.7 / ***	%	ISO 294-4, 2577
Mold temperature	**122 / ***	°F	-
Melt temperature	**482 / ***	°F	-

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	**5090 / ***	in^3/lb	ISO 307, 1157, 1628

Characteristics

Special Characteristics
High heat resistant, Medium viscosity, Low warpage / Low shrinkage

Features
Low coefficient of friction, Nucleated

Regulatory
Water contact KTW-BWGL, Water contact DIN EN 16421, Water contact WRAS, Water contact ACS

Color
Natural color

Additives
Release agent

Chemical Resistance
General chemical resistance