

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

LCA name of certificate

dry

[VESTAMID® L Compound low](#)

Unit

-

Test Standard

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	1600 / -	MPa	ISO 527
Tensile strength	47 / -	MPa	ISO 527
Yield stress	47 / -	MPa	ISO 527
Yield strain	11 / -	%	ISO 527
Stress at 50% strain	36 / -	MPa	ISO 527
Stress at break	62 / -	MPa	ISO 527
Nominal strain at break, tB	305 / -	%	ISO 527
Charpy impact strength, +23°C	N / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	4.6 / -	kJ/m ²	ISO 179/1eA
Type of failure	C / -	-	-
Charpy notched impact strength, -30°C	4.6 / -	kJ/m ²	ISO 179/1eA
Type of failure	C / -	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	180 / *	°C	ISO 11357-1/-3
Vicat softening temperature A, 10 N, 50 K/h	177 / *	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	154 / *	°C	ISO 306
Melting Temperature	180	°C	ASTM D 3418

VESTAMID®

Physical properties

Water absorption

dry / cond

0.04 / *

Unit

%

Test Standard

Sim. to ISO 62

Rheological properties

Melt volume-flow rate, MVR

9 / *

cm³/10min

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

50 / *

°C

-

Melt temperature

250 / *

°C

-

Polymer analytics

Viscosity number

dry / cond

184 / *

Unit

cm³/g

Test Standard

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