

Product Information

VESTAMID® LX9041 BK 9.7504

MEDIUM-VISCOSITY, HEAT AND LIGHT STABILIZED POLYAMIDE 12 COMPOUND



VESTAMID® LX9041 BK 9.7504 is a heat stabilized and light resistant polyamide 12 compound especially developed for extrusion coating of steel tubes.

Due to the exceptional impact strength, abrasion resistance and good chemical resistance of PA 12 as well as the excellent adhesion between the steel and the properly applied VESTAMID® LX9041 BK 9.7504, the corrosion resistance of steel tubes coated with VESTAMID® LX9041 black is significantly increased.

VESTAMID® LX9041 BK 9.7504 is supplied as cylindrical granules, ready for processing, in moisture-proof bags.

The use of colorants may affect property values.

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.

Key Features

Industrial Sector

Sustainable, Industry and Engineering

Delivery form

Pellets, Granules

Sustainability

Sustainable electricity

Resistance to

Heat (thermal stability), UV / light / weathering

Processing

Coating

Additives

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	1730 / 1370	MPa	ISO 527
Tensile strength	51 / 44	MPa	ISO 527
Yield stress	51 / 44	MPa	ISO 527
Yield strain	4 / 12	%	ISO 527
Stress at 50% strain	35 / 33	MPa	ISO 527
Stress at break	50 / 51	MPa	ISO 527
Nominal strain at break, tB	270 / 260	%	ISO 527
Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	4 / 3.5	kJ/m ²	ISO 179/1eA
Type of failure	C / C	-	-
Charpy notched impact strength, -30°C	4.3 / 4	kJ/m ²	ISO 179/1eA
Type of failure	C / C	-	-
Charpy notched impact strength, -40°C	4.6 / -	kJ/m ²	ISO 179/1eA
Type of failure	C / -	-	-
Flexural modulus, 23°C	1540 / 1350	MPa	ISO 178
Flexural stress at conv. deflection, 23°C	52 / 45	MPa	ISO 178
Flexural strength, 23°C	65 / 58	MPa	ISO 178
Flexural strain at flexural strength, 23°C	7 / 7	%	ISO 178

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	177 / *	°C	ISO 11357-1/-3
Glass transition temperature, DSC	44 / *	°C	ISO 11357-1/-2
Temp. of deflection under load A, 1.80 MPa	48 / *	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	120 / *	°C	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	176 / *	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	141 / *	°C	ISO 306
Melting Temperature	177	°C	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	1020 / -	kg/m ³	ISO 1183
Water absorption	1.3 / *	%	Sim. to ISO 62
Humidity absorption	0.7 / *	%	Sim. to ISO 62
Density	1020	kg/m ³	ASTM D 792

Burning Behav.	dry / cond	Unit	Test Standard
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
Burnin behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.2 / *	mm	-

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity, V	9.3E12 / 4.9E12	Ohm*m	IEC 62631-3-1
Surface resistivity, C, circular electrodes	>1E15 / >1E15	Ohm per square	IEC 62631-3-2
Surface resistivity, D	2E16 / -	Ohm per square	IEC 62631-3-2
Test specimen	Platte 130x130x1 mm/	-	-

Relative permittivity, 50Hz	3.8 / 4.6	-	IEC 62631-2-1
Relative permittivity, 100Hz	3.7 / 4.4	-	IEC 62631-2-1

Relative permittivity, 1MHz	3.1 / 3.2	-	IEC 62631-2-1
Dissipation factor, 50Hz	320 / 560	E-4	IEC 62631-2-1
Dissipation factor, 100Hz	330 / 610	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	195 / 363	E-4	IEC 62631-2-1

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	17 / *	cm ³ /10min	ISO 1133
Temperature	240 / *	°C	-
Load	2.16 / *	kg	-
Molding shrinkage, parallel	1.1 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577
Mold temperature	60 / *	°C	-
Melt temperature	240 / *	°C	-

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	240	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Characteristics

Applications

Corrosion protection

Color

Black

Special Characteristics

Light-stabilized, High heat resistant, Medium viscosity

Additives

Light stabilizer, Heat stabilizer