

Product Information

VESTAMID® LX9001 BK 9.7504

HIGH VISCOSITY, HEAT STABILIZED AND LIGHT RESISTANT POLYAMIDE 12 COMPOUND

VESTAMID® LX9001 BK 9.7504 is a heat stabilized and light resistant PA 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, and the excellent adhesion between the steel and the properly applied VESTAMID® LX9001 BK 9.7504, the corrosion resistance of steel tubes coated with VESTAMID® LX9001 black 9.7504 is significantly increased.

Further advantages of VESTAMID® LX9001 BK 9.7504 are the characteristics of PA 12 little low water absorption, good dimensional stability and nearly unaffected properties in changing ambient humidity.

VESTAMID® LX9001 BK 9.7504 is supplied as cylindrical pellets in moisture-proof packaging, ready for processing.

Pigmentation may affect 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

Automotive and Mobility, Sustainable, Industry and Engineering

Sustainability

Sustainable electricity

Processing

Injection molding, Extrusion, Coating

Delivery form

Pellets, Granules

Resistance to

Heat (thermal stability), UV / light / weathering, Oil / fuels

Electrical

Insulating

Conformity

Automotive

Additives

Bonding agent

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	1650 / 1300	MPa	ISO 527
Tensile strength	51 / 44	MPa	ISO 527
Yield stress	51 / 44	MPa	ISO 527
Yield strain	4 / 13	%	ISO 527
Stress at 50% strain	36 / 33	MPa	ISO 527
Stress at break	50 / 52	MPa	ISO 527
Nominal strain at break, tB	220 / 250	%	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	6 / 5	kJ/m ²	ISO 179/1eA
Type of failure	C / C	-	-
Charpy notched impact strength, -30°C	6 / 3	kJ/m ²	ISO 179/1eA
Type of failure	C / C	-	-
Flexural modulus, 23°C	1700 / 1050	MPa	ISO 178
Flexural stress at conv. deflection, 23°C	60 / 32	MPa	ISO 178
Flexural strength, 23°C	70 / 44	MPa	ISO 178
Flexural strain at flexural strength, 23°C	6 / 9.5	%	ISO 178

Flexural stress at break, 23°C	N / N	MPa	ISO 178
Flexural strain at break, 23°C	N / N	%	ISO 178

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	177 / *	°C	ISO 11357-1/-3
Temp. of deflection under load A, 1.80 MPa	45 / *	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	125 / *	°C	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	175 / *	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	145 / *	°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	1.33 / *	%	Sim. to ISO 62
Humidity absorption	0.83 / *	%	Sim. to ISO 62
Density	1020	kg/m ³	ASTM D 792

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	13 / *	cm ³ /10min	ISO 1133
Temperature	230 / *	°C	-
Load	5 / *	kg	-

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

VESTAMID®

Applications

Corrosion protection

Special Characteristics

Light-stabilized, High heat resistant, High viscosity

Color

Black

Additives

Light stabilizer, Heat stabilizer

Chemical Resistance

General chemical resistance