

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 | 239000 / 189000 | psi | ISO 527 |
| Tensile strength | 7400 / 6380 | psi | ISO 527 |
| Yield stress | 7400 / 6380 | psi | ISO 527 |
| Yield strain | 4 / 13 | % | ISO 527 |
| Stress at 50% strain | 5220 / 4790 | psi | ISO 527 |
| Stress at break | 7250 / 7540 | psi | ISO 527 |
| Nominal strain at break, tB | 220 / 250 | % | ISO 527 |
| Charpy impact strength, +23°C | N / N | ftlb/in ² | ISO 179/1eU |
| Charpy impact strength, -30°C | N / N | ftlb/in ² | ISO 179/1eU |
| Charpy notched impact strength, +23°C | 2.85 / 2.38 | ftlb/in ² | ISO 179/1eA |
| Type of failure | C / C | - | - |
| Charpy notched impact strength, -30°C | 2.85 / 1.43 | ftlb/in ² | ISO 179/1eA |
| Type of failure | C / C | - | - |
| Flexural modulus, 23°C | 247000 / 152000 | psi | ISO 178 |
| Flexural stress at conv. deflection, 23°C | 8700 / 4640 | psi | ISO 178 |
| Flexural strength, 23°C | 10200 / 6380 | psi | ISO 178 |
| Flexural strain at flexural strength, 23°C | 6 / 9.5 | % | ISO 178 |

| | | | |
|--------------------------------|--------------|-----|---------|
| Flexural stress at break, 23°C | N / N | psi | ISO 178 |
| Flexural strain at break, 23°C | N / N | % | ISO 178 |

| Thermal properties | dry / cond | Unit | Test Standard |
|---|-------------------|-------------|----------------------|
| Melting temperature | 351 / * | °F | ISO 11357-1/-3 |
| Temp. of deflection under load A, 1.80 MPa | 113 / * | °F | ISO 75-1/-2 |
| Temp. of deflection under load B, 0.45 MPa | 257 / * | °F | ISO 75-1/-2 |
| Vicat softening temperature A, 10 N, 50 K/h | 347 / * | °F | ISO 306 |
| Vicat softening temperature B, 50 N, 50 K/h | 293 / * | °F | ISO 306 |
| Melting Temperature | 351 | °F | ASTM D 3418 |

| Physical properties | dry / cond | Unit | Test Standard |
|----------------------------|-------------------|-------------------|----------------------|
| Density | 1.02 / - | g/cm ³ | ISO 1183 |
| Water absorption | 1.33 / * | % | Sim. to ISO 62 |
| Humidity absorption | 0.83 / * | % | Sim. to ISO 62 |
| Density | 1.02 | g/cm 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 | 464 | °F | ISO 294 |
| Injection Molding, mold temperature | 140 | °F | ISO 294 |
| Injection Molding, injection velocity | 7.87 | in/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