Product Information

VESTAMID® DX9310 BK E70399

HIGH-VISCOSITY, PLASTICIZED, HEAT- AND LIGHT-STABILIZED, IMPACT-MODIFIED POLYAMIDE 612 COMPOUND FOR EXTRUSION OF MLT (INTERNAL)

VESTAMID® DX9310 BK E70399 is a PA 612 extrusion compound developed for the production of tubing systems, for example multilayer tubes used as air brake lines.

Besides optimized processing behavior and improved cold impact resistance VESTAMID® DX9310 BK E70399 offers, owing to a special modification, similar mechanical properties as VESTAMID® X7393 (PA 12 based compound typically used for monolayer air brake tubing).

Due to these properties it is suited as middle layer in the multilayer tube 250.1, together with VESTAMID® X7393 as inner and outer layer.

VESTAMID® DX9310 BK E70399 is supplied as cylindrical pellets ready for processing in moisture-proof bags.

Information on design of MLT 250.1 is contained in the corresponding product information of this MLT.

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

Sustainability
Sustainable electricity

Processing
Injection molding, Extrusion

Delivery form
Pellets, Granules

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

Electrical
Insulating

Conformity
Automotive

Additives
Lubricant, Unfilled

LCA-values	dry	Unit	Test Standard
LCA name of certificate	VESTAMID® D Compound medium	-	ISO 14040, 14044
LCA certifier	TÜV Rheinland	-	ISO 14040, 14044
Blue water consumption	**21.7**	kg	ISO 14040, 14044
Global Warming Potential incl. bio. C incl. LUC	**7.2**	kg CO_2 eq./kg	ISO 14040, 14044
Global Warming Potential excl. bio. C incl. LUC	**7.2**	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	**-2.1**	kg CO_2 eq./kg	ISO 14040, 14044

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile modulus	**630 / -**	MPa	ISO 527
Tensile strength	**45 / -**	MPa	ISO 527
Stress at 50% strain	**31 / -**	MPa	ISO 527
Stress at break	**45 / -**	MPa	ISO 527
Nominal strain at break, tB	**210 / -**	%	ISO 527
Charpy impact strength, +23°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy impact strength, 0°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**101 / -**	kJ/m²	ISO 179/1eA
Type of failure	**P / -**	-	-
Charpy notched impact strength, 0°C	**58 / -**	kJ/m²	ISO 179/1eA
Type of failure	**P / -**	-	-
Charpy notched impact strength, -30°C	**10 / -**	kJ/m²	ISO 179/1eA
Type of failure	**C / -**	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	**207 / ***	°C	ISO 11357-1/-3
Melting Temperature	**207**	°C	ASTM D 3418

VESTAMID®

Physical properties	dry / cond	Unit	Test Standard
Density	**1050 / -**	kg/m³	ISO 1183
Moisture content	**0.03 / -**	Gew.-%	ISO 15512
Bulk density, Granulate	**622**	kg/m³	-
Density	**1050**	kg/m³	ASTM D 792

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	**11 / ***	cm³/10min	ISO 1133
Temperature	**275 / ***	°C	-
Load	**5 / ***	kg	-

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	**180 / ***	cm³/g	ISO 307, 1157, 1628

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	**220**	°C	ISO 294
Injection Molding, mold temperature	**60**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

Characteristics

Applications
Tube and hose

Processing
Pipe/Tube extrusion

Special Characteristics
High impact strength, Light-stabilized, U.V. stabilized, High heat resistant, High viscosity

Features
Deep-drawing property

Color
Black

Additives
Plasticizer, Impact restistant, Light stabilizer, Heat stabilizer