

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	91400 / -	psi	ISO 527
Tensile strength	6530 / -	psi	ISO 527
Stress at 50% strain	4500 / -	psi	ISO 527
Stress at break	6530 / -	psi	ISO 527
Nominal strain at break, tB	210 / -	%	ISO 527
Charpy impact strength, +23°C	N / -	ftlb/in ²	ISO 179/1eU
Charpy impact strength, 0°C	N / -	ftlb/in ²	ISO 179/1eU
Charpy impact strength, -30°C	N / -	ftlb/in ²	ISO 179/1eU
Charpy notched impact strength, +23°C	48 / -	ftlb/in ²	ISO 179/1eA
Type of failure	P / -	-	-
Charpy notched impact strength, 0°C	27.6 / -	ftlb/in ²	ISO 179/1eA
Type of failure	P / -	-	-
Charpy notched impact strength, -30°C	4.76 / -	ftlb/in ²	ISO 179/1eA
Type of failure	C / -	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	405 / *	°F	ISO 11357-1/-3
Melting Temperature	405	°F	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	1.05 / -	g/cm ³	ISO 1183
Moisture content	0.03 / -	wt.-%	ISO 15512
Bulk density, Granulate	38.8	lb/ft ³	-
Density	1.05	g/cm ³	ASTM D 792

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	11 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	4980 / *	in ³ /lb	ISO 307, 1157, 1628

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	428	°F	ISO 294
Injection Molding, mold temperature	140	°F	ISO 294
Injection Molding, injection velocity	7.87	in/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 resistant, Light stabilizer, Heat stabilizer