Product Information

VESTAMID® Terra HS22X-HI-H2 E70392

HIGH-VISCOSITY, HEAT-AND LIGHT STABILIZED, IMPACT-MODIFIED POLYAMIDE 610 COMPOUND FOR EXTRUSION

VESTAMID® Terra HS22X-HI-H2 BK E70392 is a polyamide 610 extrusion compound developed for the manufacturing of tubing systems with higher demands on heat resistance.

The melting point of VESTAMID® Terra HS22X-HI-H2 BK E70392 is being about 40°C higher than PA 11 and 12 compounds and allows higher peak temperatures in use. The compound is especially suitable for the extrusion of tubing systems that are exposed to high burst pressures at high service temperatures, e.g., hydraulic clutch lines.

The process temperature should be within a range of 240-270°C.

VESTAMID® Terra HS22X-HI-H2 BK E70392 is supplied as cylindrical, ready for processing, in moisture-proof bags.

VESTAMID® Terra is a group of new polyamides, the monomers for which are based entirely or partly on renewable raw materials. VESTAMID® Terra HS is the polycondensation product of 1,6-hexamethylene diamine (H) and 1,10-decanedioic acid (sebacic acid-S). Because sebacic acid is derived from castor oil, VESTAMID® Terra HS is a material that is partly based on bio-based and renewable resources.

The use of colorants may affect property values.

Key Features

Industrial Sector
Automotive and Mobility, Sustainable

Sustainability
Contains renewable resources

Processing
Extrusion

Delivery form
Pellets, Granules

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

Electrical
Insulating

Conformity
Contains renewable resources, Automotive

Additives
Unfilled

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile modulus	**290000 / -**	psi	ISO 527
Tensile strength	**7980 / -**	psi	ISO 527
Yield stress	**7980 / -**	psi	ISO 527
Yield strain	**4 / -**	%	ISO 527
Stress at 50% strain	**6670 / -**	psi	ISO 527
Stress at break	**6670 / -**	psi	ISO 527
Nominal strain at break, tB	**>50 / -**	%	ISO 527
Charpy impact strength, +23°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	**8.56 / -**	ftlb/in^2	ISO 179/1eA
Type of failure	**C / -**	-	-
Charpy notched impact strength, -30°C	**5.71 / -**	ftlb/in^2	ISO 179/1eA
Type of failure	**C / -**	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	**432 / ***	°F	ISO 11357-1/-3
Glass transition temperature, DSC	**118 / ***	°F	ISO 11357-1/-2
Vicat softening temperature A, 10 N, 50 K/h	**419 / ***	°F	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	**374 / ***	°F	ISO 306
Melting Temperature	**432**	°F	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	**1.06 / -**	g/cm^3	ISO 1183
Density	**1.06**	g/cm^3	ASTM D 792

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	**5540 / ***	in^3/lb	ISO 307, 1157, 1628

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	**482**	°F	ISO 294
Injection Molding, mold temperature	**176**	°F	ISO 294
Injection Molding, injection velocity	**7.87**	in/s	ISO 294

Characteristics

Applications
Tube and hose

Color
Black

Processing
Profile extrusion

Additives
Impact restistant, Light stabilizer, Heat stabilizer

Special Characteristics
High impact strength, High heat resistant, Medium viscosity