

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	2000 / -	MPa	ISO 527
Tensile strength	55 / -	MPa	ISO 527
Yield stress	55 / -	MPa	ISO 527
Yield strain	4 / -	%	ISO 527
Stress at 50% strain	46 / -	MPa	ISO 527
Stress at break	46 / -	MPa	ISO 527
Nominal strain at break, tB	>50 / -	%	ISO 527
Charpy impact strength, +23°C	N / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	N / -	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	18 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Type of failure	C / -	-	-
Charpy notched impact strength, -30°C	12 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Type of failure	C / -	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	222 / *	°C	ISO 11357-1/-3
Glass transition temperature, DSC	48 / *	°C	ISO 11357-1/-2
Vicat softening temperature A, 10 N, 50 K/h	215 / *	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	190 / *	°C	ISO 306
Melting Temperature	222	°C	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	1060 / -	kg/m <sup>3</sup>	ISO 1183
Density	1060	kg/m <sup>3</sup>	ASTM D 792

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	200 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628

## VESTAMID® Terra

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	<b>250</b>	°C	ISO 294
Injection Molding, mold temperature	<b>80</b>	°C	ISO 294
Injection Molding, injection velocity	<b>200</b>	mm/s	ISO 294

### Characteristics

#### Applications

Tube and hose

#### Processing

Profile extrusion

#### Special Characteristics

High impact strength, High heat resistant, Medium viscosity

#### Color

Black

#### Additives

Impact resistant, Light stabilizer, Heat stabilizer