Product Information

VESTAMID® E62-S3 BK V303579

HEAT- AND LIGHT-STABILIZED COMPOUND BASED ON POLYAMIDE 12 ELASTOMER FOR MOLDING OF SPORT SHOE SOLES

VESTAMID® E62-S3 BK V303579 is a PA 12 elastomer consisting of PA 12 segments and softening segments. The material is free of volatile or migrating plasticizer.

The VESTAMID® E represent thermoplastic elastomers generically characterized as polyether block copolyamides (PEBA) consisting of PA 12 and polyether segments.

VESTAMID® E62-S3 BK V303579 is especially developed for sport shoe soles. It has good impact strength at low temperatures.

VESTAMID® E62-S3 BK V303579 is supplied as cylindrical pellets in moisture-proof packaging, ready for processing.

The process temperatures should be within a range of 190°C – 230°C.

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.

The results shown have been generated from a low number of production lots. Therefore, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

Key Features

Industrial Sector
Automotive and Mobility, Sustainable, Industry and Engineering, Sports and Lifestyle

Sustainability
Sustainable electricity

Delivery form
Pellets, Granules

Optics
Translucent

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

Electrical
Insulating

Conformity
Automotive

Additives
Unfilled

LCA-values	dry	Unit	Test Standard
LCA name of certificate	VESTAMID® E mix	-	ISO 14040, 14044
LCA certifier	TÜV Rheinland	-	ISO 14040, 14044
Blue water consumption	**14.2**	kg	ISO 14040, 14044
Global Warming Potential incl. bio. C incl. LUC	**6.5**	kg CO_2 eq./kg	ISO 14040, 14044
Global Warming Potential excl. bio. C incl. LUC	**6.5**	kg CO_2 eq./kg	ISO 14040, 14044
Land use (ReCiPe 2016)	**0**	Annual crop eq. y	ISO 14040, 14044
GWP savings as compared to 2023 reference	**-1.6**	kg CO_2 eq./kg	ISO 14040, 14044

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile modulus	**405 / -**	MPa	ISO 527
Tensile strength	**24 / -**	MPa	ISO 527
Yield stress	**24 / -**	MPa	ISO 527
Yield strain	**30 / -**	%	ISO 527
Stress at 50% strain	**23 / -**	MPa	ISO 527
Stress at break	**42 / -**	MPa	ISO 527
Nominal strain at break, tB	**320 / -**	%	ISO 527
Charpy notched impact strength, +23°C	**95 / -**	kJ/m²	ISO 179/1eA
Type of failure	**P / -**	-	-

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Stress at 5% elongation	**15.3 / -**	MPa	ISO 527
Stress at 10% elongation	**20.4 / -**	MPa	ISO 527
Stress at 20% elongation	**23.2 / -**	MPa	ISO 527
Stress at 50% elongation	**23.3 / -**	MPa	ISO 527
Stress at 100% elongation	**26.8 / -**	MPa	-
Strain at break TPE	**194 / -**	%	ISO 527
Stress at break TPE	**37.4 / -**	MPa	ISO 527

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	**171 / ***	°C	ISO 11357-1/-3
Melting Temperature	**171**	°C	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Shore D hardness	**61[b] / -**	-	ISO 7619-1

b: 3 seconds

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	**9 / ***	cm^3/10min	ISO 1133
Temperature	**230 / ***	°C	-
Load	**2.16 / ***	kg	-
Melt mass-flow index, MFI	**12**	g/10min	ISO 1133
Temperature	**230**	°C	-
Load	**2.16**	kg	-

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	**220**	°C	ISO 294
Injection Molding, mold temperature	**35**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

Characteristics

Special Characteristics
Light-stabilized, High heat resistant

Additives
Heat stabilizer

Color
Black