Product Information

VESTAMID® E55-S3

Heat- and light-stabilized compound based on polyamide 12 elastomer for molding of sport shoe soles

VESTAMID E55-S3 is a PA 12 elastomer consisting of PA 12 segments and softening segments. The material is free of volatile or migrating plasticizer.

VESTAMID E55-S3 is especially developed for sport shoe soles. It has good impact strength at low temperatures.

VESTAMID E55-S3 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.

For further information, please contact our experts in the department Market Development of the High Performance Polymers Business Line.

VESTAMID® = registered trademark of the Evonik Degussa GmbH

Property		Test method international	national	Unit	VESTAMID E55-S3
Density	23°C	ISO 1183	DIN EN ISO 1183	g/cm³	1.03
Tensile test		ISO 527-1	DIN EN ISO 527-1		
Stress at 50 % strain		ISO 527-2	DIN EN ISO 527-2	MPa	17
Tensile strength				MPa	38
Strain at break				%	>200
Tensile modulus		ISO 527-1 ISO 527-2	DIN EN ISO 527-1 DIN EN ISO 527-2	MPa	220
CHARPY impact strength		ISO 179/1eU	DIN EN ISO 179/1eU		
	23°C			kJ/m²	N[1)]
	-30°C			kJ/m²	N[1)]
CHARPY notched impact strength		ISO 179/1eA	DIN EN ISO 179/1eA		
	23°C			kJ/m²	N[1)]
	-30°C			kJ/m²	22 C[1)]
Shore hardness D		ISO 868	DIN EN ISO 868		55
Temperature of deflection under load		ISO 75-1 ISO 75-2	DIN EN ISO 75-1 DIN EN ISO 75-2		
Method A	1.8 MPa			°C	45
Method B	0.45 MPa			°C	90
Vicat softening temperature		ISO 306	DIN EN ISO 306		
Method A	10 N			°C	160
Method B	50 N			°C	100
Linear thermal expansion	23-55°C	ISO 11359	DIN 53752		
longitudinal				$10^{-4}K^{-1}$	2.0
transverse				$10^{-4}K^{-1}$	2.0
Flammability acc. UL94	1.6 mm	IEC 60695	UL94		HB
Water absorption	saturation	ISO 62	DIN EN ISO 62	%	1.1
Mold shrinkage		determined on 2 mm sheets with film gate at rim, mold temperature 80°C ,ISO 294-4			
	in flow direction			%	0.6 - 1.1
	in transverse direction			%	0.9 - 1.5

Pigmentation may affect values.

[1)] C = Complete break, incl. hinge break H
N = No break

® = registered trademark

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