

## Product Information

### VESTENAMER® 8012

#### Rubber with unique properties

VESTENAMER 8012 is a rubber based on trans-polyoctenamer which has proved itself as a valuable processing aid.

Due to its properties, it is a versatile polymer that can be used to solve a wide variety of problems dealing with rubber compounding and processing.

The monomer feedstock of VESTENAMER is cyclooctene, which is synthesized from 1,3-butadiene via 1,5-cyclooctadiene. Cyclooctene is polymerized to polyoctenamer (TOR) in a metathesis reaction.

VESTENAMER 8012 can be used in the following applications:

- calendaring
- tire production
- batch technology
- modifications of thermoplastics
- rubber recycling

VESTENAMER 8012 is supplied as cylindrical pellets in polyethylen packaging.

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

Property	Test method		Unit	VESTENAMER 8012	
	international	national			
Density	23°C	ISO 1183	DIN EN ISO 1183	g/cm <sup>3</sup>	0.91
Tensile test		ISO 527-1	DIN EN ISO 527-1		
Stress at yield		ISO 527-2	DIN EN ISO 527-2	MPa	7.5
Strain at yield				%	25
Strain at break				%	> 50
CHARPY impact strength		ISO 179/1eU	DIN EN ISO 179/1eU		
	23°C			kJ/m <sup>2</sup>	N <sup>1)</sup>
	-20°C			kJ/m <sup>2</sup>	N <sup>1)</sup>
IZOD notched impact strength		ISO 180/1A	DIN EN ISO 180/1A		
	23°C			kJ/m <sup>2</sup>	N <sup>1)</sup>
	0°C			kJ/m <sup>2</sup>	22
	-23°C			kJ/m <sup>2</sup>	19
Tensile impact strength		ISO 8256	DIN EN ISO 8256		
	23°C			kJ/m <sup>2</sup>	165
	0°C			kJ/m <sup>2</sup>	190
	-20°C			kJ/m <sup>2</sup>	240
Melting range		ISO 11357			
DSC	2 <sup>nd</sup> heating			°C	54
Crystallinity		ISO 11357			
	23°C			%	approx.30
Glass transition temperature		ISO 11357			
	T <sub>g</sub>			°C	- 65
Thermal decomposition	TGA	ISO 11357		°C	275
Melt volume-flow rate (MVR)		ISO 1133	DIN EN ISO 1133		
	190°C/ 2.16kg			cm <sup>3</sup> /10 min	18
	190°C/ 5kg			cm <sup>3</sup> /10 min	50
	230°C/ 2.16kg			cm <sup>3</sup> /10 min	28
	230°C/ 5kg			cm <sup>3</sup> /10 min	78
Mooney viscosity ML (1+4) 100°C		DIN 53523	ASTM D 1646		< 10
Molecular weight M <sub>w</sub>	GPC	following DIN 55672-1			90,000
Cis/trans ratio of double bonds	IR	SOP 0188		%	20/80
Apparent density	23°C	ISO 60	DIN EN ISO 60	g/l	560

<sup>1)</sup> N = No break

® = registered trademark

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