

Product Information

# VESTENAMER® CS10

## RUBBER WITH UNIQUE PROPERTIES

**VESTENAMER® CS10** is a low-melting thermoplastic rubber based on trans-polyoctenamer (TOR) which has proven itself as a valuable processing aid. It is used for rubber compounding, processing, and manufacturing of rubber products. VESTENAMER® CS10 is exclusively designed as a problem-solver for recycled rubber materials like:

- Crumb rubber or rubber powders
- Ground tire rubber (GTR)
- Devulcanized rubber

VESTENAMER® CS10 can be used for the following recycled rubber applications:

- Additive for rubber modified asphalt
- Processing aid to improve mixing, extrusion, and molding processes
- Improve scorch time and reduce stickiness of recycled materials
- Binder system (together with curing chemicals) to produce molded goods from recycled rubber
- Improve performance and lifetime of recycled rubber products
- Surface coating and activator for crumb rubber and rubber powders

The recommended dosage of VESTENAMER® CS10 is 3-10 parts per 100 parts of recycled rubber materials. For rubber modified asphalt, we recommend the optimum dosage of 4.5 parts per 100 parts of GTR. Please note that product quality and purity of VESTENAMER® CS10 complies exclusively with applications of high recycled rubber content. Therefore, it must not be used as replacement for VESTENAMER® 8012 in virgin rubber applications.

VESTENAMER® CS10 is supplied as cylindrical pellets in polyethylene packaging.

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE VISIT OUR PRODUCT AT [WWW.VESTENAMER.COM](http://WWW.VESTENAMER.COM)

### Key Features

**Industrial Sector**

Sustainable, Sports and Lifestyle

**Additives**

Unfilled

**Delivery form**

Pellets, Granules

**Mechanical properties ISO**

Tensile modulus

**Value**

**136**

**Unit**

MPa

**Test Standard**

ISO 527

Tensile strength

**7**

MPa

ISO 527

Yield stress	<b>7</b>	MPa	ISO 527
Yield strain	<b>23</b>	%	ISO 527
Stress at 50% strain	<b>7</b>	MPa	ISO 527
Nominal strain at break, tB	<b>280</b>	%	ISO 527
Charpy impact strength, +23°C	<b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -20°C	<b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	<b>28</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Type of failure	<b>P</b>	-	-
Izod Impact notched, 23°C	<b>29</b>	kJ/m <sup>2</sup>	ISO 180/1A
Type of failure	<b>P</b>	-	-
Izod impact notched, 0°C	<b>28</b>	kJ/m <sup>2</sup>	ISO 180/1A
Type of failure	<b>C<sup>[1]</sup></b>	-	-
Izod impact notched, -20°C	<b>13</b>	kJ/m <sup>2</sup>	ISO 180/1A
Type of failure	<b>C<sup>[1]</sup></b>	-	-
Tensile-impact strength, atU 23°C	<b>108</b>	kJ/m <sup>2</sup>	ISO 8256/1
Type of failure	<b>C</b>	-	-
Tensile-impact strength, atU 0°C	<b>114</b>	kJ/m <sup>2</sup>	ISO 8256/1
Type of failure	<b>C</b>	-	-
Tensile-impact strength, atU -20°C	<b>120</b>	kJ/m <sup>2</sup>	ISO 8256/1
Type of failure	<b>C</b>	-	-

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<b>Thermal properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Melting temperature	<b>55.6</b>	°C	ISO 11357-1/-3
Glass transition temperature, DSC	<b>-67.1</b>	°C	ISO 11357-1/-2
Vicat softening temperature A, 10 N, 50 K/h	<b>50</b>	°C	ISO 306
Melting Temperature	<b>55.6</b>	°C	ASTM D 3418

**Physical properties**

	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Density	<b>912</b>	kg/m <sup>3</sup>	ISO 1183
Water absorption	<b>0.2</b>	%	Sim. to ISO 62
Bulk density, Granulate	<b>0.56</b>	kg/m <sup>3</sup>	-
Density	<b>912</b>	kg/m <sup>3</sup>	ASTM D 792

**Rheological properties**

	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Melt volume-flow rate, MVR	<b>20</b>	cm <sup>3</sup> /10min	ISO 1133
Temperature	<b>190</b>	°C	-
Load	<b>2.16</b>	kg	-
Melt volume-flow rate, MVR	<b>55</b>	cm <sup>3</sup> /10min	ISO 1133
Temperature	<b>190</b>	°C	-
Load	<b>5</b>	kg	-
Melt volume-flow rate, MVR	<b>28</b>	cm <sup>3</sup> /10min	ISO 1133
Temperature	<b>230</b>	°C	-
Load	<b>2.16</b>	kg	-

**Test specimen production**

	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Injection Molding, melt temperature	<b>60</b>	°C	ISO 294

**Characteristics**

**Color**

Natural color

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