

Product data sheet

SIDISTAR® M220ST01

Elkem ASA Silicon Products
 Drammensveien 169 P.O. Box 334
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 www.elkem.com

Description SIDISTAR® M220ST01 is a specially designed light-coloured process modifier consisting of spherical, submicron particles of amorphous silicon dioxide. The nature of the product allows excellent dispersion of these particles in the polymer matrix. This leads to improved dispersion of all compound ingredients and a better flow, allowing higher extrusion speeds and smoother surface of the end product. The product is supplied in an undensified form.

Applications SIDISTAR® M 220 ST01 has been designed for usage in thermoplastics. Areas of use include flame retardant cable compounds; foamed PVC etc. This surface modified version is specifically designed for improved water resistance and compatibility.

Chemical analysis & physical data

Properties	Test Method	Unit	Limits
SiO ₂ (<i>Silicon dioxide, amorphous</i>)	ESM-LAB-18	%	96.0 - 99.0
C (<i>Carbon</i>)	ESM-LAB-05	%	≤ 0.2
Fe ₂ O ₃ (<i>Iron oxide</i>)	ESM-LAB-17	%	≤ 0.25
H ₂ O (<i>Moisture, when packed</i>)	ESM-LAB-02	%	≤ 0.8
Loss on Ignition (<i>L.O.I.</i>) @ 950 °C	ESM-LAB-03	%	≤ 0.60
pH-value (<i>fresh</i>)	ESM-LAB-10		7.0- 9.0
Coarse Particles > 45μ (<i>325 mesh</i>)	ESM-LAB-09	%	≤ 0.1
Bulk Density (<i>when packed</i>)	ESM-LAB-08	kg/m ³	150 - 350
Properties (<i>measured on undensified material</i>)	Test Method	Unit	Typical Values**
Specific surface area (<i>BET</i>)		m ² /g	20 - 30
Median particle size		μm	0.15
L-Value		%	≥ 90.0
Specific Gravity		g/cm ³	2.2

** Typical values are for indicational use only, values are not part of Elkem Silicon Materials standard analysis.

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Packaging

	1 big bag	21 small bags
Bags on pallet	1 big bag	21 small bags
Bag material	Coated woven polypropylene fabric	Paper bag
Cover / protection	LDPE shrink hood	LDPE shrink hood
Pallet	Fumigated wood	Fumigated wood

Dimensions (metric)

Net weight 1 bag	300 kg	20 kg
Net weight on pallet	300 kg	420 kg
Gross weight	320 kg	440 kg
Bag dimensions (L x W x H)	106 x 106 x 142 cm	73 x 46 x 20 cm
Discharge spout	Ø: 42 cm, Length 70 cm	
Pallet dimensions incl bags (L x W x H)	105 x 105 x 143 cm	100 x 120 x 130 cm

Dimensions (imperial)

Net weight 1 bag	661 lb	44 lb
Net weight on pallet	661 lb	794 lb
Gross weight	705 lb	836 lb
Bag dimensions (L x W x H)	41.7 x 41.7 x 55.9 in	28.7 x 18.1 x 7.9 in
Discharge spout	Ø: 16.5 in, Length 27.6 in	
Pallet dimensions incl bags (L x W x H)	41.3 x 41.3 x 56.3 in	39.4 x 47.2 x 51.2 in

Storage and handling

The product is recommended to be stored in a covered dry place, protected from direct UV light. Recommended storage temperature between +5 °C and +40 °C (+45 °F and +104 °F). It's important that the minimum temperature is > 5 °C (9 °F) above the dew point. Recommended relative humidity < 85 %.

Shelf life

We recommend that the product should be used within 2 years from production date

Health, safety & environment

The product safety information, as well as REACH information, can be found on our website: www.sidistar.com.

Quality assurance

Elkem's management system is certified to ISO 9001:2015.

Sustainability

For Elkem, sustainability is central to our business strategy. Our mission is to provide advanced material solutions shaping a better and more sustainable future, adding value to our stakeholders globally. We are committed to reducing in embodied carbon emission. For further information, please visit www.elkem.com/sustainability/ or contact us to learn more about our sustainability roadmap.

Additional information and contact

For further information about SIDISTAR®, a contact list can be found on our webpage www.sidistar.com