



AV10320

Extraordinary Innovation

Next generation dispersion aid from Dow Corning

The performance of reinforced polymers depends on both the filler and the polymer-filler interaction at the interface. This makes filler dispersion a critical component in the compound. Dow Corning, the leader in silicone technology, has developed a new, innovative multifunctional siloxane dispersion aid that will:

- Improve filler dispersion
- Improve compatibility between materials
- Provide application-specific benefits

Extraordinary Performance

Dow Corning[®] Z-6173 Filler Dispersion Aid*

Dow Corning[®] Z-6173 Filler Dispersion Aid, a new alkoxy-functional siloxane dispersion aid, works as both a dispersing and hydrophobing agent. It contains alkoxy- and alkyl-functional groups to improve dispersion of inorganic fillers into organic polymers such as resins/plastics and rubber. The alkyl functionality acts as both a compatibilizer with organic polymer matrices, as well as a hydrophobe to reduce water absorption.

Extraordinary Benefits

Low cost: The high efficiency of *Dow Corning* Z-6173 Filler Dispersion Aid allows the use of more filler while achieving similar performance properties. It is also priced lower than similar competitive products, based on dispersing actives content.

Ease of use: Z-6173 Filler Dispersion Aid requires no pre-hydrolysis or catalyst.

Low VOC: *Dow Corning* Z-6173 Filler Dispersion Aid generates lower levels of methanol than traditional, monomeric silane coupling agents.

Processing options: *Dow Corning* Z-6173 Filler Dispersion Aid works in both wet and dry processes. It can be used to pre-treat the filler or delivered in situ via liquid injection or absorption onto a carrier.

Productivity increase: Z-6173 Filler Dispersion Aid lowers the viscosity of the molten compound in the mixer, increasing throughput and reducing the amount of energy needed for extrusion.



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Typical properties

Property	Unit	Value
Appearance		Colorless liquid
Viscosity at 25°C	cSt	9
Actives Content	wt%	>96
Boiling Point of Actives ¹	°C	193
Specific Gravity		0.97

Materials were tested according to Dow Corning Corporate Test Methods (CTMs).
Copies of CTMs are available on request.

¹Boiling point of actives, less low boiling impurities such as methanol.

Z-6173 Filler Dispersion Aid provides a breadth of application flexibility and material compatibility, making it suitable for use with a wide range of filler types, including, but not limited to:

- Silica (colloidal, precipitated, and fumed)
- Mica
- Wollastonite
- Kaolin
- Glass Fibers
- Quartz
- Aluminum Trihydrate
- Magnesium Hydroxide
- Talc
- Calcium Carbonate (precipitated and ground)
- Titanium Dioxide
- Ferrous Metals
- Natural Fibers
- Carbon Microfibers (CNT)

Learn More

As the pioneer of organosilane technology, Dow Corning has been improving customers' products and profitability for more than 50 years. With a full range of silane product and application solutions, reliable supply, world-class manufacturing operations, and global reach, Dow Corning can meet virtually all of your silane needs through our total solution offering and technology leadership.

Contact your distributor or visit our website, www.dowcorning.com/silanes, to learn more about all of Dow Corning's silane solutions.

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* Application Patent Pending

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