

FUMED METAL OXIDES



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**SpectraI™ TG-A90 treated fumed alumina for Toners**



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## SpectrAI™ TG-A90 for Toners application

- High dispersibility
- High performance stability from high to low humidity conditions
- Better electrostatic charge control and stability
- Safer to handle than other similar products, like treated fumed TiO<sub>2</sub>.

## Cabot in the World

With business extending over 20 countries, Cabot has 6 fumed metal oxides manufacturing facilities in the world, besides research and development facilities focused in developing new products and technology and bringing new solutions to our customers.



### Technical Centers:

- Billerica, MA - USA
- Rheinfelden - Germany
- Shanghai - China

Introduction



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# Applications and solutions

The use of additives in toners formulation improves their flowability and reduces the moisture pick up behavior, maintaining their high dispersibility. Additionally, they can offer a wide range of electrostatic charge control, which is important for the toner transfer properties.

SpectrAl™ TG-A90 is a treated fumed alumina for toners applications, specially designed to stabilize toners performance in a variety of humidity and temperature conditions, with improved performance over similar treated fumed metal oxides.

## SpectrAl™ TG-A90 treated fumed alumina

### Typical properties

BET surface area	53 m <sup>2</sup> /g
Carbon content	4,6 wt%
Tamped density	115 g/L

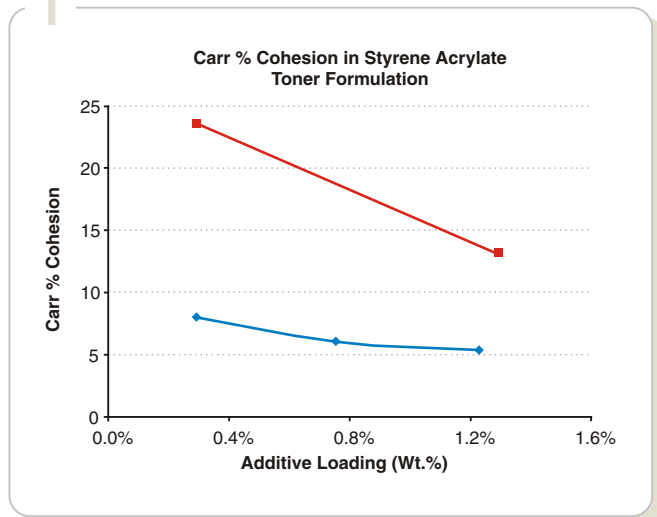
BENEFITS\*

- BETTER PERFORMANCE STABILITY FROM HIGH TO LOW HUMIDITY CONDITIONS
- SAFER TO HANDLE
- SIMILAR TRIBO-CHARGE
- BETTER CARR COHESION

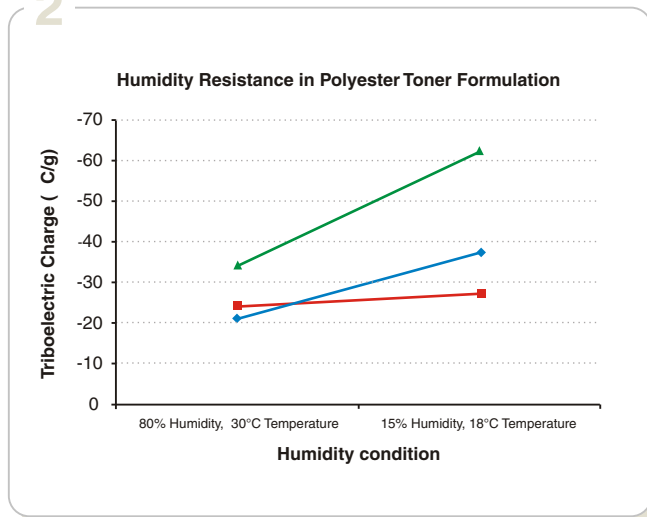
\* When compared with fumed TiO<sub>2</sub>

### Comparison

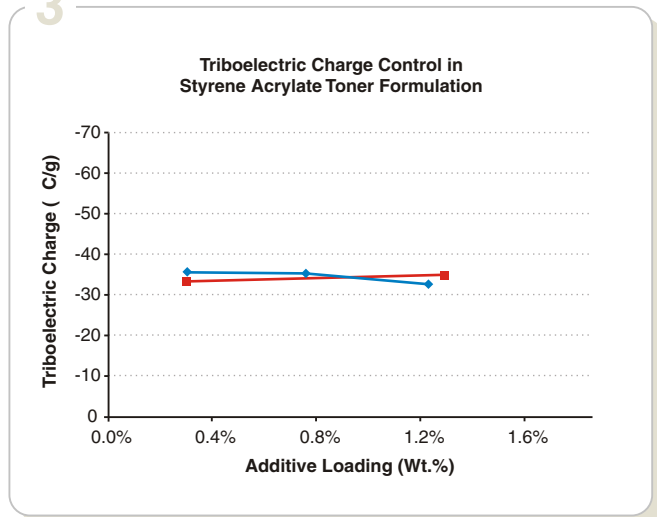
1



2



3



- ◆ SpectrAl™ TG-A90
- Treated fumed TiO<sub>2</sub>
- ▲ Treated fumed silica

### Analysis

- 1 For a given additive loading level, SpectrAl™ TG-A90 delivers a lower Carr % Cohesion value than treated fumed TiO<sub>2</sub>, as shown in graphic 1. This lower value indicates better free flow.
- 2 SpectrAl™ TG-A90 offers superior humidity stability as compared with treated fumed silica. In addition, this product offers a much more stable triboelectric charge over the test range, with its performance approaching that of treated fumed TiO<sub>2</sub>.
- 3 When SpectrAl™ TG-A90 and treated fumed TiO<sub>2</sub> are loaded at equivalent weight percentages (under the same ambient conditions), the resulting triboelectric charge control achieves similar performance.

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