PPG AGILON[®] Performance Silicas



PPG AGILON[®] Performance Silicas for Tire

Designed to improve the performance and processing of highly dispersible silica (HDS) green tire tread formulations, PPG AGILON[®] performance silicas support the tire industry's need for safer, more environmentally responsible products by lowering rolling resistance and improving tire handling and traction.

Agilon performance silicas eliminate the need for silane coupling agents, thus increasing manufacturing efficiency and reducing associated volatile organic compound (VOC) emissions.

Agilon performance silicas drive top line results through improved tire performance, while streamlining the manufacturing process for bottom line cost savings.

Benefits

- Enables tire makers to develop new and differentiated technologies
- Improves tire performance (rolling resistance, handling and traction)
- Reduces VOC emissions for a more environmentally responsible
 manufacturing process
- Increases production efficiencies by eliminating the in-situ silica/ silane mixing step
- Enables high temperature mixing without increasing viscosity or causing premature vulcanization
- Eliminates extrusion inefficiencies due to porosity concerns
- Improves shelf life of uncured rubber



| Typical Properties | | | | | | | |
|--|---------------------------------|---------------------------------|---------------------------------|--|--|--|--|
| | Agilon 400 silica | <i>Agilon</i> 454 silica | Agilon 458 silica | | | | |
| CTAB Surface Area, m ² /g | 140 | 200 | 200 | | | | |
| N ₂ BET-5 Surface Area, m ² /g | 75 | 140 | 115 | | | | |
| SH, Wt. % | 0.5 | 0.5 | 0.5 | | | | |
| Carbon, Wt. % | 4.0 | 4.0 | 6.0 | | | | |
| рН | 6.5 | 6.5 | 6.5 | | | | |
| Residual Salt Type | Na ₂ SO ₄ | Na ₂ SO ₄ | Na ₂ SO ₄ | | | | |
| Physical Form | Granule | Granule Granule | | | | | |

| Typical Passenger Tread Performance | | | | | | | | |
|-------------------------------------|---|---|--------------------------|--------------------------|--------------------------|--|--|--|
| | 160 CTAB HD Silica/ In-Situ Silane | 200 CTAB HD Silica/ In-Situ Silane | Agilon 400 silica* | Agilon 454 silica* | Agilon 458 silica* | | | |
| Processing | Good | Fair | Best | Good | Better | | | |
| Dispersibility | Good | Fair | Best | Best | Best | | | |
| Reinforcing Capability | Good | Better | Good | Better | Better | | | |
| Stiffness / Handling | Good | Better | Good | Best | Better | | | |
| Fuel Efficiency | Good | Good | Best | Better | Better | | | |
| Traction | Good | Good | Best | Better | Better | | | |
| Treadwear | Good | Better | Good | Better | Better | | | |

* Requires appropriate changes in curatives, filler, free oil and zinc oxide loadings as well as mix time and temperatures.

Product Safety and Regulatory Information

For the latest product safety and regulatory information, please reference the Safety Data Sheets at www.ppgsilica.com.

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Samples

TIRE

Samples are available per request from customer service.

Packaging

Standard packaging includes small bags and Flexible Intermediate Bulk Containers (FIBCs). Bags are unitized for shipping on pallets which are stretch wrapped with clear plastic film. FIBCs are single or double stacked on wood pallets. Please consult with Silica Customer Service or your Silica Sales Representative regarding additional packaging options including custom package sizes and bulk shipments.

Storage

To ensure product integrity, we recommend that our silica products be stored under dry, clean conditions, protected against exposure to direct sunlight and other substances, and used within twelve months of the date of manufacture.

Safety and Health Effects

We recommend that, before use, anyone using or handling this product thoroughly read and understand the information and precautions on the label, as well as in other product safety publications such as the Material Safety Data Sheet. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be. The products mentioned herein can be hazardous if not used properly. Like all potentially hazardous materials, this product must be kept out of the reach of children.



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