High Surface Area, Superior Processing

Agilon 454® performance silica is a new high surface area offering in the Agilon performance silica technology platform. Like Agilon 400 performance silica, Agilon 454 performance silica eliminates the need for silane coupling agent addition which results in improved manufacturing efficiency and reduced volatile organic compound (VOC) emissions. Furthermore, the change in surface chemistry for Agilon 454 performance silica yields reduced mix viscosities resulting in unparalleled processing for silicas of this surface area range.

<table>
<thead>
<tr>
<th>Typical Properties</th>
<th></th>
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<tbody>
<tr>
<td>CTAB Surface Area, m²/g</td>
<td>200</td>
</tr>
<tr>
<td>N₂ (BET-5) Surface Area, m²/g</td>
<td>140</td>
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<tr>
<td>SH, Wt. %</td>
<td>0.5</td>
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<tr>
<td>Carbon, Wt. %</td>
<td>4.0</td>
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<tr>
<td>pH</td>
<td>6.5</td>
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<tr>
<td>Reinforcing Capability</td>
<td>High</td>
</tr>
<tr>
<td>Dispersibility</td>
<td>High</td>
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<tr>
<td>Processing</td>
<td>Good</td>
</tr>
</tbody>
</table>

Superior Performance

Natural rubber may contain up to six percent by weight of impurities associated with its biosynthesis and subsequent processing. These impurities typically consist of: proteins, amino acids, carbohydrates, lipids, amines, nucleic acids, dirt ash, and metal ions, all of which may have some affinity for the silica surface during in-situ mixing, resulting in a reduced ability for the silica to react with the coupling agent and the rubber matrix. The pre-functionalized surface of Agilon 454 performance silica eliminates this issue and results in significantly reduced rolling resistance with excellent wear and improved mechanical properties in natural rubber compounds. Furthermore, the silica can be used at lower mix/dump temperatures, better preserving the intrinsic mechanical properties of natural rubber.
Samples
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, PPG recommends 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
PPG Industries recommends 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.

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

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