VULCAN® XC72 Conductive Carbon Black

Product Highlights
VULCAN XC72 specialty carbon black is a uniquely designed conductive carbon black from our XC family of conductive carbon blacks. Its unique properties allow end products to deliver functionality at relatively lower loading levels compared to Cabot’s other carbon blacks in the XC family. VULCAN XC72 specialty carbon black has demonstrated its performance capabilities for many years, allowing compounders to feel confident using it in a wide range of conductive applications.

Key Applications
VULCAN XC72 specialty carbon black is suitable for use across a range of conductive applications:
- Conductor shields used in medium voltage power cables
- Insulation shields used in medium voltage power cables
- Conductive plastic molded or extruded parts where protection from electrostatic discharge (ESD) is required

By compounding VULCAN XC72 specialty carbon black into plastics, a compounder can change the electrical property of the final product from insulative to conductive, anti-static, or dissipative. For instance, VULCAN XC72 specialty carbon black is compounded into plastics trays and pouches that are used extensively in electronics manufacturing to protect sensitive products against electrostatic discharge. In addition, it is frequently compounded in molded or extruded parts to help deliver dissipative performance in hazardous environments.

Performance Features
VULCAN XC72 specialty carbon black has several important features:
- A full range of conductivity performance depending on loading (but typically at lower loadings than other XC carbon blacks or standard carbon blacks)
- Good dispersion characteristics to promote surface smoothness and preserve mechanical performance of polymer
- Low sulfur and grit levels
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**Figure 1:** Performance for Power Cables

- **CONDUCTIVITY - ISO 3915**
- **90°C VOLUME RESISTIVITY (OHM.CM)**
- **25°C VOLUME RESISTIVITY (OHM.CM)**
- **SURFACE RESISTIVITY (OMS/SQ)**

![Graph](image_url)

CABOT VULCAN SPECIALTY CARBON BLACKS

EEA Compound with 38% Loading of Carbon Black

**Figure 2:** Performance for ESD Applications

- **INCREMENTAL CARBON BLACK LOADING (WT %)**

![Graph](image_url)

CABOT SPECIALTY CARBON BLACKS: VULCAN XC72, VULCAN XC605

**Typical Properties**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUES</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iodine number (mg/g)</td>
<td>253</td>
<td>ASTM D-1510</td>
</tr>
<tr>
<td>OAN (cc/100g)</td>
<td>174</td>
<td>ASTM D-2414</td>
</tr>
<tr>
<td>325 mesh residue (ppm)</td>
<td>&lt;25</td>
<td>ASTM D-1514</td>
</tr>
<tr>
<td>Density (kg/m3)</td>
<td>264</td>
<td>ASTM D-1513</td>
</tr>
</tbody>
</table>

The data in the table above are typical test values intended as guidance only, and are not product specifications. Product specifications are available upon request from your Cabot representative.

**Product Form & Logistics**

- Product Form: Pellets or fluffy
- Regional Availability: Global
- Bag Packaging Options: 15 kg paper
- Bulk Packaging Options: 750 kg FIBC

The Material Safety Data Sheet (MSDS) available through your Cabot representative or on our website www.cabotcorp.com provides the recommended storage conditions of this product.

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