PARALOID™ EXL-2300G Impact Modifier
For Epoxy Applications

Regional Availability
Asia-Pacific, EMEA, Americas

Description
PARALOID™ EXL 2300G Impact Modifier is an all-acrylic core-shell impact modifier based on butyl-acrylate rubber, providing high impact strength at temperatures as low as -10°C, with good heat and UV stability.

Features & Benefits
The architecture and composition of PARALOID™ EXL-2300G Impact Modifier yield high toughening efficiency and excellent compatibility with most epoxy resins, without impairing glass transition temperature. PARALOID™ EXL-2300G Impact Modifier provides toughness to cured epoxy formulations at both room and sub-zero temperatures, increases elongation at break, improves fatigue performance, and adhesion to metal substrates. Epoxy formulations containing this additive have lower viscosity than those formulated with general purpose acrylate core-shell impact modifiers*.

Typical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Lower Limit</th>
<th>Upper Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass through 325 mesh/0.045 mm</td>
<td>%</td>
<td>0.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Retained on 60 Mesh/0.250 mm</td>
<td>%</td>
<td>0.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Total Volatiles</td>
<td>%</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Ash Content</td>
<td>%</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>g/cm³</td>
<td>0.410</td>
<td>0.530</td>
</tr>
</tbody>
</table>

Processing Information
PARALOID™ EXL-2300G Impact Modifier is a powder form which consists of grains of agglomerated submicronic primary core-shell particles, which size and shape are predefined, and independent of processing. The primary core-shell particles must be dispersed uniformly in the liquid epoxy resin to reach full performance. Dispersion depends on shear strength applied to the formulation and its viscosity. High shear dispersion equipment such as homogenizers are recommended, working at elevated temperatures in the range of 60 to 80°C. Pre-blending and pre-heating, as well as incubation time will favour the modifier dispersion.

Packaging
The standard package is a unitized pallet of 20 kg bags. Please consult a Dow representative for specific package availability.

Storage
Store product in tightly closed original containers at temperatures recommended on the product label.
Technical Data Sheet

**Safety data sheet**
Before using this product, consult the Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage. Contact your local Dow representative for copies of the SDS.

**Disposal**
Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe and legal manner. It is the user’s responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations.

**Handling**
CAUTION! Keep combustible and/or flammable products and their vapors away from heat, sparks, flames and other sources of ignition including static discharge. Processing or operating at temperatures near or above product flashpoint may pose a fire hazard. Use appropriate grounding and bonding techniques to manage static discharge hazards. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material, local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions, employ bonding and grounding for operations capable of generating static electricity.

**Medical application policy**
NOTICE REGARDING MEDICAL APPLICATION RESTRICTIONS: Dow will not knowingly sell or sample any product or service (“Product”) into any commercial or developmental application that is intended for:

a. long-term or permanent contact with internal body fluids or tissues. “Long-term” is contact which exceeds 72 continuous hours;

b. use in cardiac prosthetic devices regardless of the length of time involved (“cardiac prosthetic devices” include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);

c. use as a critical component in medical devices that support or sustain human life; or

d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction. Dow requests that customers considering use of Dow products in medical applications notify Dow so that appropriate assessments may be conducted. Dow does not endorse or claim suitability of its products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Dow product is safe, lawful, and technically suitable for the intended use.

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**Regulatory information**
If your application includes a sensitive application such as food contact or drinking water requirements or if you need other regulatory information, please contact your local Dow representative.
Customer notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets, should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

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