DuPont™ Delrin® acetal resin, the world’s first acetal polymer, is a highly versatile engineering polymer which offers an excellent balance of desirable properties that bridges the gap between metals and ordinary plastics. Acetal polymers are commonly referred to as polyoxymethylene or POM and parts are commonly identified with the part marking code >POM< for recycling purposes.

All POM Delrin® E-grades for low emissions meet the automotive industry’s demanding requirements for the use of plastics in vehicle interiors. This extends the scope of application for Delrin® acetal resins in vehicles to include plastic components in interiors, where high resistance to impact load is required.

**Product Line**

Delrin® E-grades for low emissions are available in several basic melt flow series: 100, 300, and 500. These differ primarily in melt viscosity with 100 being the most viscous and 500 being the most fluid. A wide range of Delrin® E-grades acetal resin are available to meet specific customer needs for demanding applications:

- Unreinforced resins (PE-grades)
- Toughened and super tough resins (TE-grades)
- UV-stabilized grades (UVE-grades)

As is typical for all Delrin® acetal resins, the new low emission grades combine high impact resistance, even at low temperatures, with high stiffness, strength and elongation. It provides high surface hardness, very low wear and friction, resiliency and a high resistance to chemicals and solvents.

Testing by the SGS Institut Fresenius GmbH in Germany, in accordance with the VDA standard 275, confirms that all E-grades of Delrin® meet the demanding emission requirements of the world’s major automotive manufacturers. The SGS testing revealed emissions of below 2 mg/kg for all grades, while internal testing showed their strength, stiffness and impact resistance to be similar or better than the standard grades.

**Applications**

Delrin® E-grades for low emissions are suitable for applications such as:

- fasteners
- seatbelt components
- headrest adjusters
- levers
- brackets
- gears
- switches
- buckles
- latches
- components with snap-in joints
PE Grades
DuPont™ Delrin® PE grades for low emissions are unreinforced grades that are very suitable for applications located within the vehicle’s interior as they offer less than 2 mg/kg emission of volatile particles per VDA275, meeting the requirements of the global automotive industry and performing as well as standard Delrin® products.

**Delrin® 100PE**
- high viscosity
- maximum toughness without impact modification
- optimum mechanical performance
- high heat deflection temperature

**Delrin® 300PE**
- medium-high viscosity
- greater design flexibility and freedom
- high mechanical properties with ease of process in mind
- enables wall thicknesses reduction with good resin flow in complex parts
- improved weld line strength

**Delrin® 500PE**
- medium viscosity
- enhanced version of Delrin® 500P with extremely low emissions
- improved processing thermal stability
- good balance of melt flow vs. mechanical properties

UV Stabilized Grades
DuPont™ Delrin® UVE grades for low emissions are UV stabilized acetal resins and are available in 3 different viscosities:
- Delrin® 127 UVE—high viscosity
- Delrin® 327 UVE—medium-high viscosity
- Delrin® 527 UVE—medium viscosity

As Delrin® PE grades, UVE grades offer less than 2 ppm emission of volatile particles.

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Units</th>
<th>Delrin® 100PE NC010</th>
<th>Delrin® 300PE NC010</th>
<th>Delrin® 500PE NC010</th>
<th>Delrin® 127UVE NC010</th>
<th>Delrin® 327UVE NC010</th>
<th>Delrin® 527UVE NC010</th>
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<td>15</td>
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<td>95</td>
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<td>&lt;2</td>
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**DUPONT™ DELRIN® E-GRADES FOR LOW EMISSIONS**

**TE and STE Grades**

DuPont™ Delrin® TE grades for low emissions are toughened grades offering less than 2 mg/kg emission of volatile particles. They are available in 3 different viscosities and different levels of toughener while keeping the same performance as standard toughened Delrin® grades.

**Delrin® 100TE**
- toughened, high viscosity resin
- outstanding impact resistance and good moldability
- good friction partner in gear applications
- designed for highly stressed parts where outstanding toughness is required

**Delrin® 300TE**
- toughened, medium-high viscosity
- very good balance of melt flow and impact properties
- low noise properties

**Delrin® 100STE**
- super tough, high viscosity
- superior impact resistance
- best combination of stiffness and impact resistance at very low temperature
- use in easy-to-fill molds

**Delrin® 500TE**
- toughened, medium viscosity
- high impact resistance
- optimized flow properties and impact performance
- good friction partner in gear applications
- low noise properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Units</th>
<th>Delrin® 100STE</th>
<th>Delrin® 100TE</th>
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