



Product Data Sheet

DuPont™ AmberLyst™ 33 Polymeric Catalyst Industrial-grade, Strongly Acidic Catalyst

Description

DuPont™ AmberLyst™ 33 Polymeric Catalyst is a clean, gel, sulfonic acid, polymeric catalyst exhibiting high activity for the production of high-purity Bisphenol-A (BPA) via the condensation of phenol with acetone. This catalyst was specifically designed with very low acid leaching to meet the more stringent demands of BPA.

Applications

- Condensation (Bisphenol-A)

Typical Properties

Physical Properties

Copolymer	Styrene-divinylbenzene
Matrix	Gel
Type	Strong acid cation
Functional Group	Sulfonic acid
Physical Form	Amber, translucent, spherical beads

Chemical Properties

Ionic Form as Shipped	H ⁺
Concentration of Acid Sites †	≥ 5.00 eq/kg ≥ 1.20 eq/L
Water Retention Capacity	64 – 70%

Particle Size §

Particle Diameter	550 – 750 µm
Uniformity Coefficient	≤ 1.60
< 300 µm	≤ 1.0%
> 1180 µm	≤ 2.0%

Shrinkage (in solvent)

Phenol	46%
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Density

Shipping Weight	750 g/L
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† Dry Weight Capacity ≥ 5.00 eq/kg; Total Exchange Capacity (on a water-wet basis) ≥ 1.20 eq/L

§ For additional particle size information, please refer to the [Particle Size Distribution Cross Reference Chart](#) (Form No. 45-D00954-en).

Suggested Operating Conditions

Maximum Operating Temperature	130°C (265°F) in non-aqueous media 80°C (175°F) in aqueous media
Bed Depth, min.	1000 mm (3.3 ft)
Pressure Drop, max.	1 bar (15 psig) across the bed
Flowrates	
Linear Hourly Space Velocity (LHSV)	0.5 – 5 h ⁻¹

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Please be aware of the following:

- **WARNING:** Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

Have a question? Contact us at:

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