

AmberLyst™ 36DRY Polymeric Catalyst

Industrial-grade, Strongly Acidic Catalyst

Description

AmberLyst™ 36DRY Polymeric Catalyst is a bead-form, macroporous, sulfonic acid resin developed particularly for heterogeneous catalysis.

The special process used to manufacture AmberLyst™ 36DRY results in a particularly high concentration of acid groups and also confers an improved thermal stability when compared to catalysts with a similar level of crosslinking. It is also less prone to the polymer fouling.

AmberLyst™ 36DRY is mainly used in the phenol alkylation processes.

Applications

- Phenol alkylation

Typical Properties

Physical Properties	
Copolymer	Styrene-divinylbenzene
Matrix	Macroporous
Type	Strong acid cation
Functional Group	Sulfonic acid
Physical Form	Black, opaque, spherical beads
Nitrogen BET	
Surface Area	33 m ² /g
Total Pore Volume	0.20 cc/g
Average Pore Diameter	240 Å
Chemical Properties	
Ionic Form as Shipped	H ⁺
Concentration of Acid Sites ‡	≥ 5.40 eq/kg
Catalyst Volatiles	≤ 1.65%
Particle Size §	
Particle Diameter	550 – 700 µm
< 300 µm	≤ 2.0%
> 1180 µm	≤ 3.0%
Swelling (in solvent)	
Phenol	20%
Density	
Shipping Weight	770 g/L

‡ Dry Weight Capacity ≥ 5.40 eq/kg

§ 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	150°C (300°F)
Bed Depth, min.	600 mm (2.0 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.



info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289

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