AMBERLYST®35DRY

Industrial Grade Strongly Acidic Catalyst

PRODUCT DATA SHEET

AMBERLYST 35DRY is a bead form, strongly acidic ion exchange resin developed particularly for heterogeneous acid catalysis of a wide variety of organic reactions. It is also useful in non aqueous ion exchange systems for the removal of cationic impurities.

The macroreticular pore structure of AMBERLYST 35DRY permits ready access of liquid or gaseous reactants to the hydrogen ion sites located throughout the bead, thus ensuring successful performance even in non swelling organic media.

The minimal water content of AMBERLYST 35DRY makes it excellent for use in non-aqueous systems where the presence of water will have a negative effect on catalytic activity. Also the higher thermal limit and higher dry weight capacity of AMBERLYST 35DRY make it the catalyst of choice for phenol alkylation, esterification, etherification, and condensation hydrolysis.

PROPERTIES

Physical form	Opaque beads
Ionic form as shipped	Hydrogen
Concentration of acid sites [1]	≥ 5.0 eq/kg
Water content [1]	≤ 3 % (H^+ form)
Shipping weight	560 g/L (35 lbs/ft^3)
Particle size	
Fines content [1]	< 0.300 mm : 1.0 % max
Coarse beads	> 1.180 mm : 5.0 % max
Nitrogen BET	
Surface area	50 m^2/g
Average pore diameter	300 Å
Total pore volume	0.35 cc/g
Swelling	Dry to phenol : 27 %

[1] *Contractual value*

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature	150°C (300°F) in non aqueous media
Minimum bed depth	600 mm (24 inches)
Operating flow rate	1 to 5 BV*/h (LHSV)
Pressure drop limitation	1 bar (15 psig) across the bed

** 1 BV = 1 m^3 solution per m^3 of resin*

All our products are produced in ISO 9002 certified manufacturing facilities.

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Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with Ion Exchange resins. Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these materials.