



AMBERLYST™ A26 OH

Industrial Grade Strongly Basic Polymeric Resin

Introduction

AMBERLYST A26 OH is a strong base, type 1, anionic, macroreticular polymeric resin based on crosslinked styrene divinylbenzene copolymer containing quaternary ammonium groups. Its porous structure makes it a good choice for use in aqueous and non aqueous media. The macroreticular structure and pore size distribution imparts superior resistance to mechanical and osmotic shock.

AMBERLYST A26 OH is virtually inert in strong acids, concentrated alkalies, aliphatic and aromatic hydrocarbons, alcohols, ethers and other common solvents.

Properties

| | |
|-------------------------------|-------------------------------------|
| Physical form | Tan opaque spherical beads |
| Ionic form as shipped | Hydroxide (OH) |
| Concentration of active sites | ≥ 0.80 eq/L |
| Moisture holding capacity | 66 to 75% (OH form) |
| Shipping weight | 675 g/L (42.1 lbs/ft ³) |
| Particle size | |
| Uniformity coefficient | ≤ 1.45 |
| Harmonic mean size | 0.560 to 0.700 mm |
| Nitrogen BET | |
| Surface area | 30 m ² /g |
| Average pore diameter | 290 Å |
| Total pore volume | 0.20 ml/g |
| Shrinkage | Water to acetone: 34% |

Catalysis

AMBERLYST A26 OH is used to catalyze reactions such as aldol condensation and carbonylation where strongly basic catalyst is required. Its pore structure allows large molecules to enter and react on the basic groups.

Suggested Operating Conditions

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|-------------------------------|--|
| Maximum operating temperature | 60°C (140°F) |
| Minimum bed depth | 1000 mm (39 inches) / 600 mm (24 inches) |
| Operating flow rate | 1 to 5 BV*/h (LHSV) |
| Pressure drop limitation | 1 bar (15 psig) across the bed |
| Service flow rate | 1 to 4 BV*/h (0.125 to 0.5 gpm/ft ³) |
| Operating flow rate | 1 to 4 BV/h |
| Regenerant concentration | 1 N NaOH |
| Regenerant flow rate | 1 to 4 BV/h |
| Rinse water requirement | 4 to 10 BV (30 to 75 gal/ft ³) |

Separation technologies

AMBERLYST 26 OH is used to remove anionic transition metal complexes and mercaptans from hydrocarbons, acids from hydrocarbons and other non-polar solvents, oleic acid from chlorinated hydrocarbons and acids from phenol-acetone solutions. The macroreticular matrix provides large pores presenting a sponge like structure. This feature combined with its strong basicity permits the removal of large size soluble organic molecules.

Hydraulic Characteristics

Figure 1 shows the bed expansion of AMBERLYST A26 OH as a function of backwash flow rate and water temperature.

Figure 2 shows the pressure drop data for AMBERLYST A26 OH as a function of service flow rate and water temperature.

Figure 1: Bed expansion

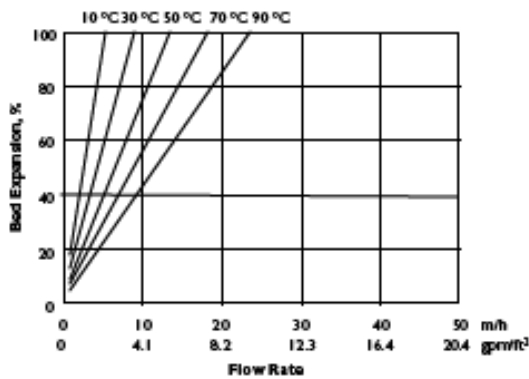
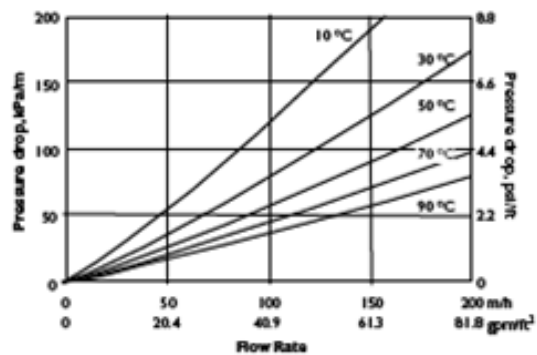


Figure 2: Pressure drop



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