



## AMBERLYST™ 36WET

Industrial Grade Strongly Acidic Catalyst

### Introduction

AMBERLYST 36WET is a bead form, macroreticular, sulfonic acid ion exchange resin developed particularly for heterogeneous catalysis.

The special process used to manufacture AMBERLYST 36WET 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.

AMBERLYST 36WET is mainly used in the olefin hydration process.

### Properties

Physical form	Opaque beads
Ionic form as shipped	Hydrogen
Concentration of acid sites	≥ 1.95 eq/L ≥ 5.40 eq/kg
Moisture holding capacity	51 to 57 % (H <sup>+</sup> form)
Shipping weight	800 g/L (50 lbs/ft <sup>3</sup> )
Particle size	
Harmonic mean size	0,600 – 0,850 mm
Uniformity coefficient	≤ 1.6
Fines contents	< 0.425 mm: 0.5% max
Coarse beads	> 1.180 mm: 4.0% max
Nitrogen BET	
Surface area	33 m <sup>2</sup> /g
Average pore diameter	240 Å
Total pore volume	0.20 cc/g
Shrinkage	Water to phenol: 20% Water to dry: 54%

### Suggested Operating Conditions

Maximum operating temperature	150°C (300°F)
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

### Hydraulic Characteristics

Figure 1 shows the bed expansion of AMBERLYST 36WET as a function of backwash flow rate and water temperature.

Figure 2 shows the pressure drop data for AMBERLYST 36WET as a function of service flow rate and water temperature.

Figure 1: Bed expansion

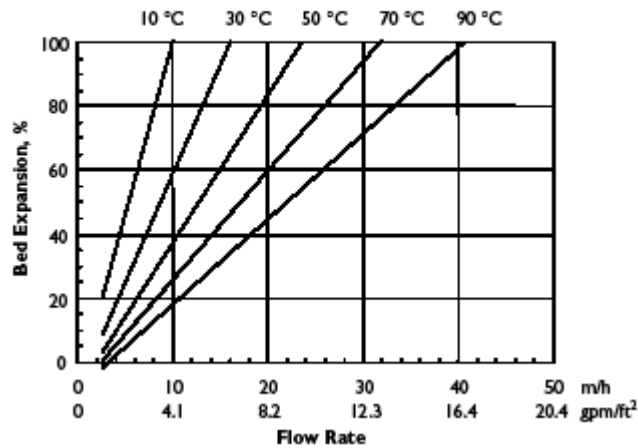
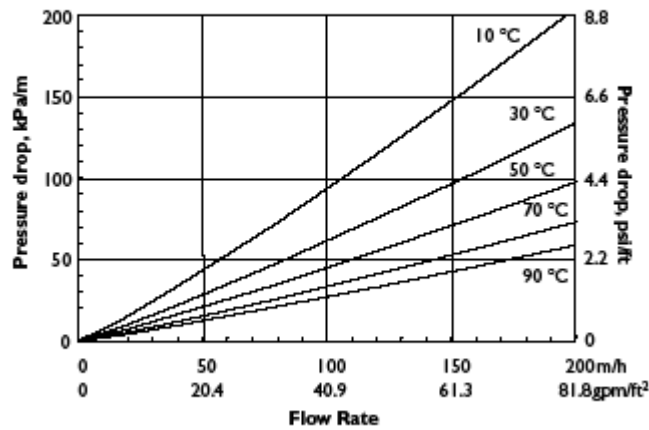


Figure 2: Pressure drop



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