

SEPARATION TECHNOLOGIES

ION EXCHANGE RESINS

DUOLITE A 368

ENGINEERING DATA SHEET



Duolite A 368 is a macroporous weak base Anion Exchange Resin. These data provide information to calculate the operating capacity of Duolite A 368

The properties of Duolite A 368 are described in the Product Data Sheet.

OPERATING CAPACITY

The operating capacity is obtained by multiplying the basic value from Table 1 by the correction factors A, B, and C from Tables 2 to 4.

$$\text{Cap} = \text{Cap}_0 \times A \times B \times C$$

TABLE 1 : Basic Capacity versus SO₄ / FMA* ratio

SO ₄ / FMA %	Capacity eq / L (Cap ₀)
0	1.05
20	1.11
40	1.15
60	1.22
80	1.33
100	1.36

* FMA = Free Mineral Acidity = Anions of Strong Acids

TABLE 2 : Capacity Correction Factor A versus CO₂ Concentration.

CO ₂ , ppm as CaCO ₃	Factor A
0.0	0.94
5.0	0.96
12.5	0.97
25.0	0.99
37.5	1.01
> 50.0	1.035

TABLE 3 : Capacity Correction Factor B versus Water Temperature.

Water °C	Factor B
5	0.90
15	1.00
25	1.05
35	1.08
45	1.10

TABLE 4 : Capacity Correction Factor C versus Run Length. (hours)

Run (hours)	Factor C
4	0.80
6	0.88
8	0.92
12	0.97
18	0.99
>24	1.00

TABLE 3 : Suggested Operating Conditions

Maximum operating temperature _____	60°c (F.B.)	100 °c (Cl ⁻)
Minimum bed depth _____	700 mm	
Service flow rate _____	5 to 40 BV* / hr	
Maximum linear velocity _____	50 m / hr	
Regenerant _____	NaOH	NH ₃
Level _____	30-70 g / l	20-80 g / l
		Na ₂ CO ₃
		60-130 g / l
Flow rate _____	2 to 8 BV/ hr (minimum contact time : 30 minutes)	
Concentration _____	2 - 4 %	2 - 6 %
Slow rinse _____	4 - 8 %	
Fast rinse _____	Min 2 BV at regeneration flow rate.	
Influent limitations	Same as service flow rate.	
Free chlorine _____	Nil	
Turbidity _____	< 2 NTU	
Iron & heavy metal _____	< 0.1 ppm	

* 1 BV (Bed Volume) = 1 m³ solution per m³ resin.

DUOLITE A 368

ENGINEERING DATA SHEET

SAFE HANDLING INFORMATION

A Material Safety Data Sheet is available for each product. To obtain a copy contact your Auchtel representative.

CAUTION

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 oxidizing 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 oxidizing agent such as nitric acid is contemplated. Before using strong oxidizing agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these material.

The suggestions and data in this bulletin are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale. The Company maintains a policy of continuous development and reserve the right to amend any specification without notice. DUOLITE is a trademark of Rohm and Hass Company, Philadelphia, U.S.A. and Auchtel Products Ltd. are users of the same in India.

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