

Lewatit® TP 207

Lewatit TP 207 is a premium grade weakly acidic, macroporous-type ion exchange resin with chelating iminodiacetate groups for the selective removal of heavy metal cations from weakly acidic to weakly basic solutions. Divalent cations are removed from neutralized waters in the following order: *copper > vanadium (VO) > uranium (UO₂) > lead > nickel > zinc > cadmium > iron (divalent) > beryllium > manganese > calcium > magnesium > strontium > barium > sodium*

Lewatit TP 207 applications*:

removal of heavy metals from ground water, plating rinses, pickling and process baths

Typical physical and chemical properties**

		US Units		International Units	
Ionic form as shipped			Na ⁺		Na ⁺
Bead size	> 90%	US mesh	16 - 40	mm	0.4 - 1.25
Effective size		mm.	0.55 +/- 0.05	mm	0.55 +/- 0.05
Shipping weight		lbs/ft ³	47	g/l	755
Density				g/ml	1.17
Water retention		% weight	53 - 58	%	53 - 58
Total capacity, min.	hydrogen form	kgr CaCO ₃ / ft ³	48	eq/l	2.2
Volume change	Na ⁺ > > H ⁺	max. %	-35	max. %	-35
Stability	temperature range	°F	14 - 180	°C	-10 - 80
	pH range		0 - 14		0 - 14
Storability	of product	min years	2	min. years	2
	temperature range	°F	-4 - 104	°C	-20 - 40

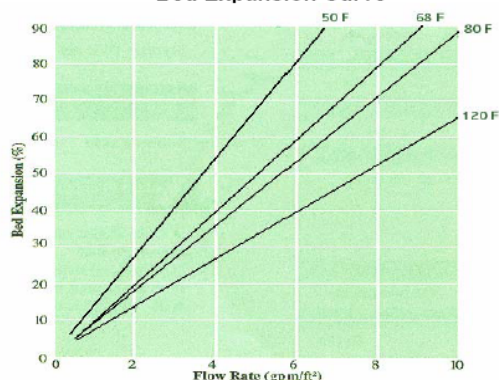
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Recommended Operating Parameters

		US Units		International Units	
Operating Temperature		max. °F	180	max. °C	80
Operating pH-range			1.5 - 9		1.5 - 9
Bed Depths		min. ft	3.2	min. mm	1000
Pressure Drop			see chart		see chart
Max. adm. Pressure drop		psi	36	kPa	250
Surface Flow Rate	exhaustion	gpm/ft ²	2 - 16	m/h	5 - 40
	backwash	gpm/ft ²	see chart	m/h	see chart
Bulk Flow Rate	exhaustion	max. gpm/ft ³	2.5	max. BV/h	20
Bed Expansion		%	see chart	%	see chart
Freeboard	% of bed depth	%	80 - 100	%	80 - 100
Regenerant	type		HCl* H ₂ SO ₄ *		HCl H ₂ SO ₄
	level	lb/ft ³	7 - 10 10 - 15	g/l	120 - 160 160 - 240
	concentration	%	6 - 10	%	6 - 10
Surface Flow Rate	regeneration	gpm/ft ²	0.4 - 4 1 - 6	m/h	1 - 10 3 - 15
	rinsing, slow / fast	gpm/ft ²	0.4 - 6 / 2 - 16	m/h	1 - 15 / 5 - 40
Bulk Flow Rate	regeneration	gpm/ft ³	0.3 - 1 0.5 - 4	BV/h	2.5 - 8 4 - 32
	rinsing, slow / fast	gpm/ft ³	0.3 - 4 / 1 - 5	BV/h	2.5 - 32 / 8 - 40
Rinsing Water Requirement	slow / fast	gals./ft ³	7 - 15 / 8 - 30	BV	1 - 2 / 1 - 4

*Conditioning Step: Mono-Na 3-4 lbs/cu.ft. (48-64 g/l) NaOH; Di-Na 5-6 lbs/cu.ft. (80-96 g/l) NaOH at 4% concentration

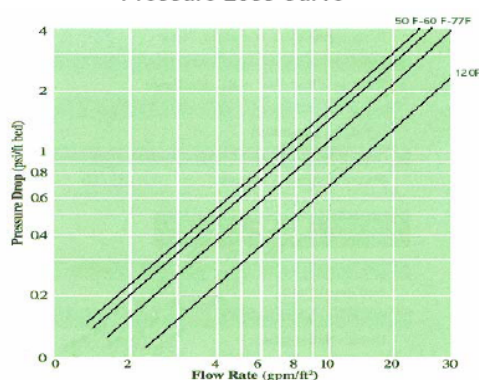
Bed Expansion Curve



$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$$

$$\text{m} = \text{ft} \cdot 0.3048$$

Pressure Loss Curve



$$\text{kPa} = \text{psi} \cdot 7.03$$

$$\text{m} / \text{hr} = \text{gpm} / \text{sq.ft.} \cdot 2.44$$

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WATER TREATMENT AND air purification

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