

## 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 <sup>+</sup>	Na <sup>+</sup>
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 <sup>3</sup> 47	g/l 755
Density			g/ml 1.17
Water retention		% weight 53 - 58	% 53 - 58
Total capacity, min.	hydrogen form	kgr CaCO <sub>3</sub> / ft <sup>3</sup> 48	eq/l 2.2
Volume change	Na <sup>+</sup> > > H <sup>+</sup>	max. % -35	max. % -35
Stability	temperature range	°F 14 - 180	°C -10 - 80
	pH range		0 - 14
Storability	of product	min years 2	min. years 2
	temperature range	°F -4 - 104	°C -20 - 40

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Lewatit TP 207. Before working with this product, you must read and become familiar with the available information on its hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult your Sybron Chemicals Inc. representative or contact Bayer's Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

\*As with any product, use of the products mentioned in this publication in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

\*\*These items are provided as general information only. They are approximate values and are not part of the product specifications.

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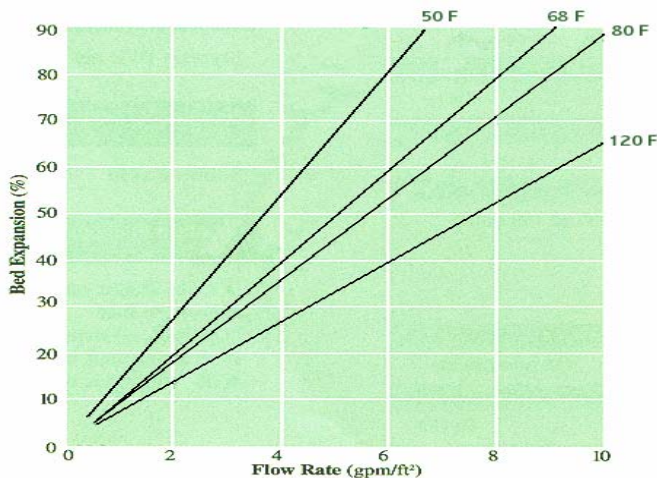
# Lewatit® TP 207

## Recommended Operating Parameters

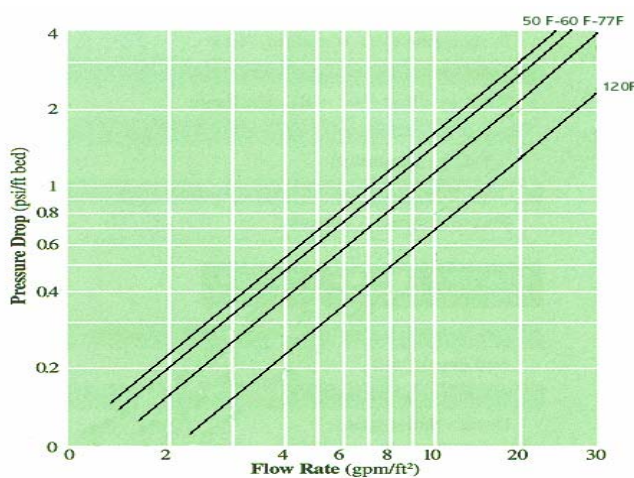
		US Units		International Units	
Operating Temperature		max. °F	180	max. °C	80
Operating pH-range			1.5 - 9		1.5 - 9
Bed Depths		min. ft	3.2	min. mm	1000
Pressure Drop			see chart		see chart
Max. adm. Pressure drop		psi	36	kPa	250
Surface Flow Rate	exhaustion	gpm/ft <sup>2</sup>	2 - 16	m/h	5 - 40
	backwash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



### Pressure Loss Curve



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

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

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

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

Note: The information contained in this bulletin is current as of April 2003. Please contact Sybron Chemicals Inc. to determine whether this publication has been revised.

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