



## Ionac<sup>®</sup> NM 73

**IONAC NM 73** is a highly regenerated mixed bed ion exchange resin consisting of a 1:1 chemically equivalent mixture of a type 1, porous, strong base anion exchange resin and a strong acid cation exchange resin. **NM 73** is specially treated for high conversion and low TOC to meet the most exacting standards of high purity water industry.

### Ionac NM 73 applications\*:

deminalization, mixed bed polishing; electronics, laboratory, rad waste, and process industries

### Typical physical and chemical properties\*\*

		US Units		International Units	
<b>Ionic form as shipped</b>			H <sup>+</sup> / OH <sup>-</sup>		H <sup>+</sup> / OH <sup>-</sup>
<b>Bead size</b>	> 90%	US mesh	16 - 50	mm	0.3 - 1.25
<b>Effective size</b>		mm	0.47 +- 0.06	mm	0.47 +- 0.06
<b>Shipping weight</b>		lbs/ft <sup>3</sup>	43	g/l	688
<b>Density</b>				g/ml	1.2
<b>Water retention</b>		% weight	55 - 60	%	55 - 60
<b>Total capacity, min.</b>	to 20,000 Ohm-cm	kgr CaCO <sub>3</sub> / ft <sup>3</sup>	12	eq/l	0.55
<b>Conversion</b>		max. %	90 - 95	max. %	90 - 95
<b>Stability</b>	temperature range	°F	34 - 120	°C	1 - 49
	pH range		0 - 14		0 - 14
<b>Storability</b>	of product	min years	2	min. years	2
	temperature range	°F	40 - 104	°C	5 - 40

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Ionac NM 73. 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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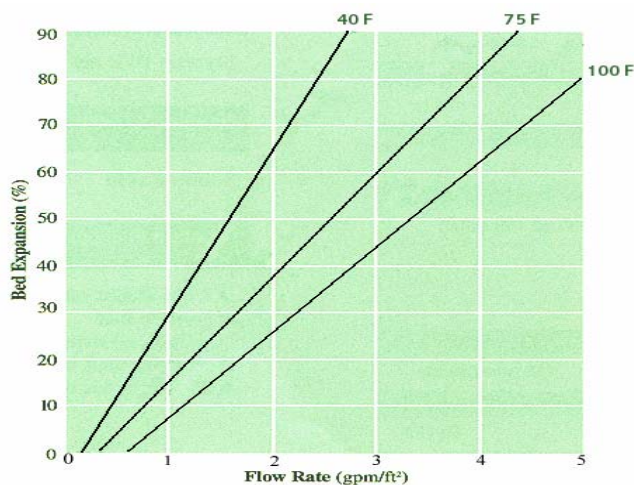
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## Recommended Operating Parameters

		US Units		International Units	
Operating Temperature		max. °F	140	max. °C	60
Operating pH-range			0 - 14		0 - 14
Bed Depths		min. ft	2.0	min. mm	610
Pressure Drop			see chart		see chart
Max. adm. Pressure drop		psi	28	kPa	200
Surface Flow Rate	exhaustion	gpm/ft <sup>2</sup>	5 - 15	m/h	12 - 40
	backwash	gpm/ft <sup>2</sup>	see chart	m/h	see chart
Bulk Flow Rate	exhaustion	gpm/ft <sup>3</sup>	1 - 6	BV/h	8 - 48
Bed Expansion		%	65 - 80	%	65 - 80
Freeboard	% of bed depth	%	80 - 100	%	80 - 100
Regenerant	type		HCl/H <sub>2</sub> SO <sub>4</sub>   NaOH		HCl/H <sub>2</sub> SO <sub>4</sub>   NaOH
	level	lb/ft <sup>3</sup>	5 - 15	g/l	80 - 240
	concentration	%	0.7 - 6   4 - 6	%	0.7 - 6   4 - 6
Surface Flow Rate	regeneration	gpm/ft <sup>2</sup>	1 - 4   0.4 - 4	m/h	2 - 10   1 - 10
	rinsing, slow / fast	gpm/ft <sup>2</sup>	1 - 4 / 5 - 15	m/h	2 - 10 / 12 - 40
Bulk Flow Rate	regeneration	gpm/ft <sup>3</sup>	0.5 - 1   0.25 - 1	BV/h	4 - 8   2 - 8
	rinsing, slow / fast	gpm/ft <sup>3</sup>	0.25 - 1 / 1 - 6	BV/h	2 - 8 / 8 - 48
Rinsing Water Requirement	slow / fast	gals./ft <sup>3</sup>	7 - 15 / 23 - 70	BV	1 - 2 / 3 - 9

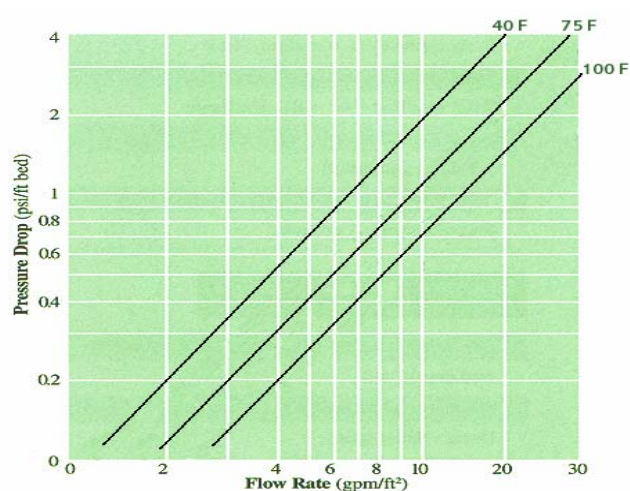
### Bed Expansion Curve



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

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

### Pressure Loss Curve



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

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

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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