DIAION™ **SK112**

DIAION™ SK112 is a gel type strongly acidic cation exchange resin. It has 12% cross-linkages and excellent properties. A wide range of applications, especially in a field of manufacturing and processing pure water, is recommended.

| D | ro | Ч | | ct |
|---|-------|---|---|-------|
| М | 1 () | u | u | (. [|

| Product | | | | | |
|---|--------|--------------------------------------|--|--|--|
| Grade Name | | DIAION TM SK112 | | | |
| Туре | | Strong Acid Cation | | | |
| Matrix | | Styrene-DVB, Gel | | | |
| Functional Group | | Sulfonic acid | | | |
| lonic Form | | Na ⁺ | | | |
| Specification | | | | | |
| Whole Bead Count | = | 90 min. | | | |
| Salt Splitting Capacity | meq/mL | 2.1 min. | | | |
| Water Content | % | 32 - 42 | | | |
| Particle Size Distribution on 1180 μm | % | 5 max. | | | |
| Particle Size Distribution thr. 300 μm | % | 1 max. | | | |
| Effective Size | mm | 0.40 min. | | | |
| Uniformity Coefficient | - | 1.6 max. | | | |
| Typical Properties | | | | | |
| Shipping Density | g/L | 860 | | | |
| Mean Particle Size | μm | 690 | | | |
| Particle Density | g/mL | 1.34 | | | |
| Total Swelling (Na ⁺ to H ⁺) | % | 6 | | | |
| Recommended Operating Conditions | | | | | |
| Maximum Operating Temperature | °C | 120 | | | |
| Operating pH Range | | 0 - 14 | | | |
| Minimum Bed Depth | mm | 800 | | | |
| Service Flow Rate | m/h | 10 - 40 | | | |
| Regenerant | | HCI | | | |
| | | H_2SO_4 | | | |
| Regenerant Concentration | % | HCl 4 - 10 | | | |
| | | H ₂ SO ₄ 1 - 4 | | | |
| Regenerant Level | g/L | 30 - 150 | | | |
| Regenerant Flow Rate | m/h | 2 - 10 | | | |
| Total Rinse Requirement | BV | 2 - 10 | | | |







DIAION[™] SK112

Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of $\mathsf{DIAION}^\mathsf{TM}$ SK112 resin in normal down flow operation is shown in the graphs below.

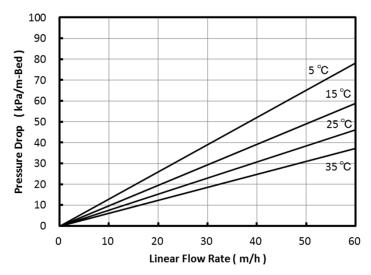


Fig. 1 Pressure Drop of SK112

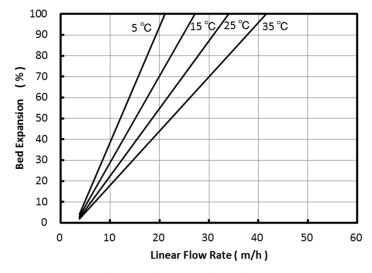


Fig. 2 Bed Expansion of SK112





Operational Capacity Data

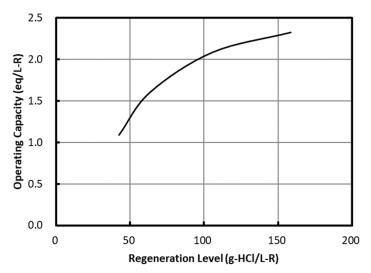


Fig. 3 Operational Capacity Data of SK112

Regenerant: 4 % HCI

Notice

DIAIONTM is a registered trademark of Mitsubishi Chemical Corporation. The information contained herein is believed to be true and accurate, but all data, recommendations and suggestions are provided without guarantee, since the conditions of use are beyond our control and can affect the performance and properties of our products. The user is solely responsible for confirming that our product is suitable for the intended end use, and for compliance with all legal regulations and patents. Other than compliance with published Mitsubishi Chemical Corporation specifications agreed to pursuant to a signed writing during the warranty period, and except as required by law, MITSUBISHI CHEMICAL CORPORATION AND ITS AFFLIATES MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If a product is found to be defective during the warranty period, user's sole remedy and our sole obligation is, at our option, replacement of the affected product or refund of the purchase price. Except as required by law, we are not liable for any damage, harm or loss resulting from our product, whether direct, indirect, consequential, incidental or special, and irrespective of legal theory asserted, including strict liability, contract, warranty, or negligence.





