Product Data Sheet

# DIAION™ SKT20L

DIAION™ SKT20L is a gel type strongly acidic cation exchange resin. It has standard cross-linkages and shows lower TOC and metal leakage. It is recommended for semiconductor UPW application.

## Product

| | |
|---|---|
| Grade Name | DIAION™ SKT20L |
| Type | Strong Acid Cation |
| Matrix | Styrene-DVB, Gel |
| Functional Group | Sulfonic acid |
| Ionic Form | $H^+$ |

## Specification

| | | |
|---|---|---|
| Color and Shape | - | Brown Translucent Beads |
| Salt Splitting Capacity | meq/mL | 1.7 min. |
| Water Content | % | 50 - 60 |
| Particle Size Distribution on 1180 µm | % | 5 max. |
| Particle Size Distribution thr. 425 µm | % | 1 max. |
| Effective Size | mm | 0.45 min. |
| Uniformity Coefficient | - | 1.6 max. |
| Ionic Form Conversion ($H^+$) | eq% | 99.9 min. |
| Metal Content (Na) | ppb/dry-g | 1000 max. |
| Metal Content (Ca) | ppb/dry-g | 1000 max. |
| Metal Content (Fe) | ppb/dry-g | 1000 max. |
| Metal Content (Zn) | ppb/dry-g | 1000 max. |
| ΔTOC | ppb | 5.0 max. |
| Outlet Resistivity | MΩ·cm | 16 min. |

## Typical Properties

| | | |
|---|---|---|
| Shipping Density | g/L | 790 |
| Mean Particle Size | µm | 710 |
| Particle Density | g/mL | 1.20 |
| Total Swelling ($Na^+$ to $H^+$) | % | 9 |

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## Recommended Operating Conditions

| | | |
|---|---|---|
| Maximum Operating Temperature | °C | 120 |
| Operating pH Range | | 0 - 14 |
| Minimum Bed Depth | mm | 800 |
| Service Flow Rate | BV/h | 10 - 40 |
| Regenerant | | HCl |
| | | $H_2SO_4$ |
| Regenerant Concentration | % | HCl 4 - 10 |
| | | $H_2SO_4$ 1 - 4 |
| Regenerant Level | g/L | 30 - 150 |
| Regenerant Flow Rate | BV/h | 2 - 10 |
| Total Rinse Requirement | BV | 2 - 10 |

1 BV(Bed Volume)=1 $m^3/m^3$-resin

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## Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ SKT20L resin in normal down flow operation is shown in the graphs below.

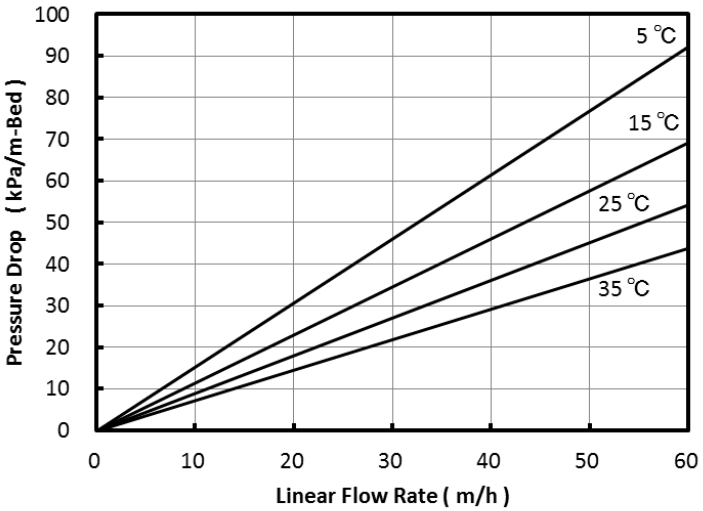


**Fig. 1 Pressure Drop of SKT20L**

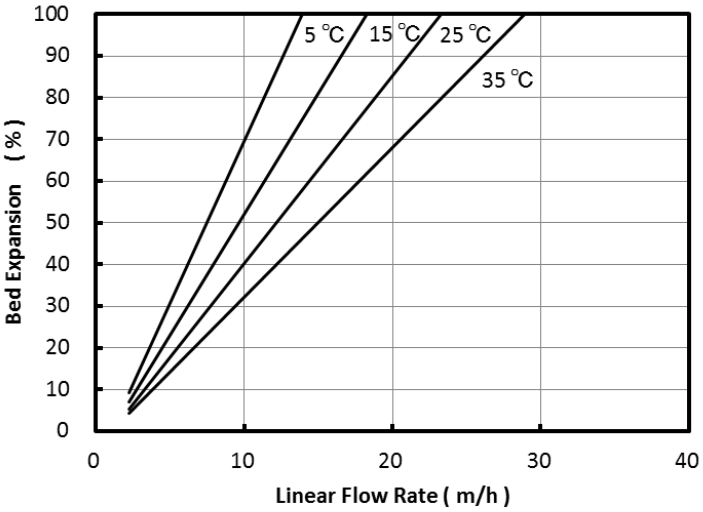


**Fig. 2 Bed Expansion of SKT20L**

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## Rinse Performance

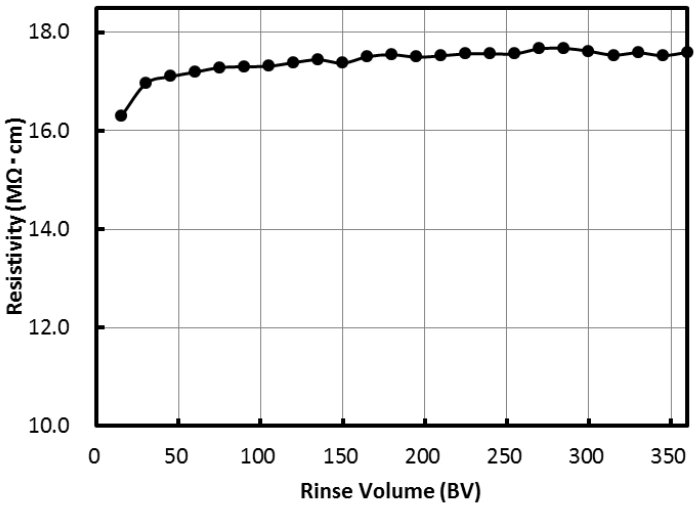


**Fig. 3 Resistivity versus Rinse Volume for SKT20L**
**Flow rate : SV 30 (15 L/hr), Resin volume : 500 mL-R**

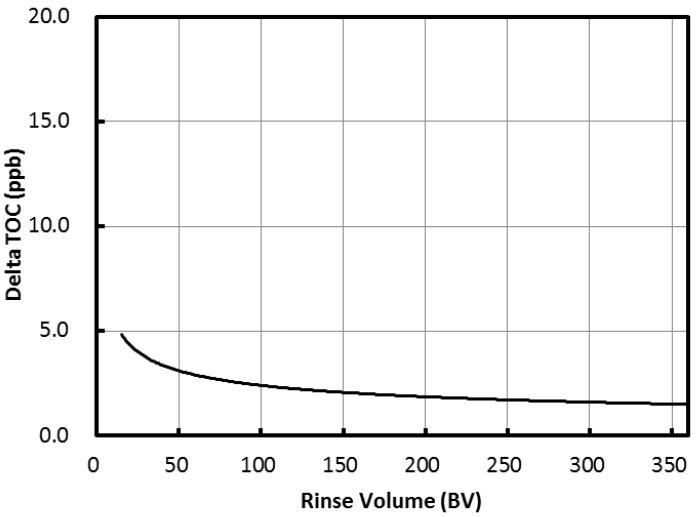


**Fig. 4 Delta TOC versus Rinse Volume for SKT20L**
**Flow rate : SV 30 (15 L/hr), Resin volume : 500 mL-R**

## Notice