

# HYDROLUX<sup>®</sup> NM-60

## Mixed Bed Resin For Polishing Application

### Descriptions

**HYDROLUX<sup>®</sup> NM-60** is an ultrapure grade mixed bed resin. It is specifically designed and manufactured for use in high purity water system.

**HYDROLUX<sup>®</sup> NM-60** is a fully regenerated mixed bed of uniform particle size cation and anion exchange resin. This mixed bed product is particularly suitable for use in the polishing of high purity water for specialty electronics applications, pharmaceutical, power plant and chemical manufacturing industry.

**HYDROLUX<sup>®</sup> NM-60** is also suitable for any general purpose mixed bed applications for the economical production of high purity water.

**HYDROLUX<sup>®</sup> NM-60** has good kinetic performance, mechanical and chemical stability since its component resins are uniform particle size resins. Component resins are mixed to give a stoichiometric equivalent of cation and anion exchange capacity. **HYDROLUX<sup>®</sup> NM-60** is produced high resistivity and low TOC in standard operating condition

### Specification

| Type                   | Strongly Acidic Cation Gel Type     |          | Strongly Basic Anion Gel Type |
|------------------------|-------------------------------------|----------|-------------------------------|
| Matrix                 | Polystyrene + DVB (Divinyl Benzene) |          |                               |
| Ionic Form             | H <sup>+</sup>                      |          | OH <sup>-</sup>               |
| Shipping Weight (g/L)  | 695                                 |          |                               |
| Total Capacity         | 1.9 eq/L ↑                          |          | 1.0 eq/L ↑                    |
| Moisture Contents (%)  | 52 ± 5                              |          | 63 ± 5                        |
| Uniformity Coefficient | ≤ 1.1                               |          | ≤ 1.1                         |
| Particle Size (mm)     | 630 ± 50                            |          | 590 ± 50                      |
| Ionic Conversion%      | H form                              | 99.0 Min |                               |
|                        | OH form                             | 95.0 Min |                               |
| Mixed Ratio (%)        | 1:1 (by equivalents) Cation : Anion |          |                               |
| Operating Temperature  | 60 °C Max                           |          |                               |

## Suggested Operating Conditions

|   |                |
|---|----------------|
| Feed water temperature                    | 15 to 25°C     |
| Minimum bed depth                         | 900 mm         |
| Service flow rate                         | 30 to 50 BV*/h |
| Recommended <i>influent</i> water quality |                |
| Inlet Resistivity                         | > 17 MΩ·cm     |
| Inlet Silica                              | < 2 ppb        |
| Inlet Total Organic Carbon                | < 15 ppb       |

\* 1 BV (Bed Volume) = 1 m<sup>3</sup> solution per m<sup>3</sup> resin

## Handling

To protect eyes and skin of operator, protective gears such as glasses, sometimes gloves are necessary. It is recommended that eye-wash facilities are nearby at the using area. Since it is small beads type, it will be very slippery when it is spilled on the floor. Exposure to high temperature, sparks and flames should be avoided. Exposure to or mixing with oxidizing agents like nitric acid also should be avoided for the safety.

## Storage

Dry, cool and dark places with ventilation are recommended. Storage container bags or drums should be tightly sealed to prevent intrusion of impurities and drying. At high temperature, degradation of capacity may occur and below freezing temperature, freezing of resin may occur. The freezing may cause physical breakage leading to low whole bead count.

## Disposal

There are two ways to dispose of resins. Unused ones could be discarded by landfill or incineration following local regulations with fore-mentioned cautions. For incineration, furnace equipped with suitable safety measures is necessary because toxins such as SO<sub>x</sub>, NO<sub>x</sub>, CO<sub>x</sub> could be generated. Used ones could be landfilled or incinerated as well but poisonous materials like heavy metals, if they are contained, should be removed before resins be discarded.

## Packaging

25L PE Bag / 50L Drum / 1,000L Ton bag

### **Hydrolux Technology Co., Ltd.** *We are experts on liquid purification*

HEADQUARTER  
5F., NO.7-1, Sec. 1, Nanchang Rd., Zhongzheng  
Dist., Taipei City 10074, Taiwan  
TEL +886 2 23966266 FAX +886 2 23964136

FACTORY  
NO.19, Ln.777, Dongping Rd., Taiping Dist.,  
Taichung City 41141, Taiwan