**Shandong GuangHui New Material Technology Co., Ltd**

# DATA SHEET

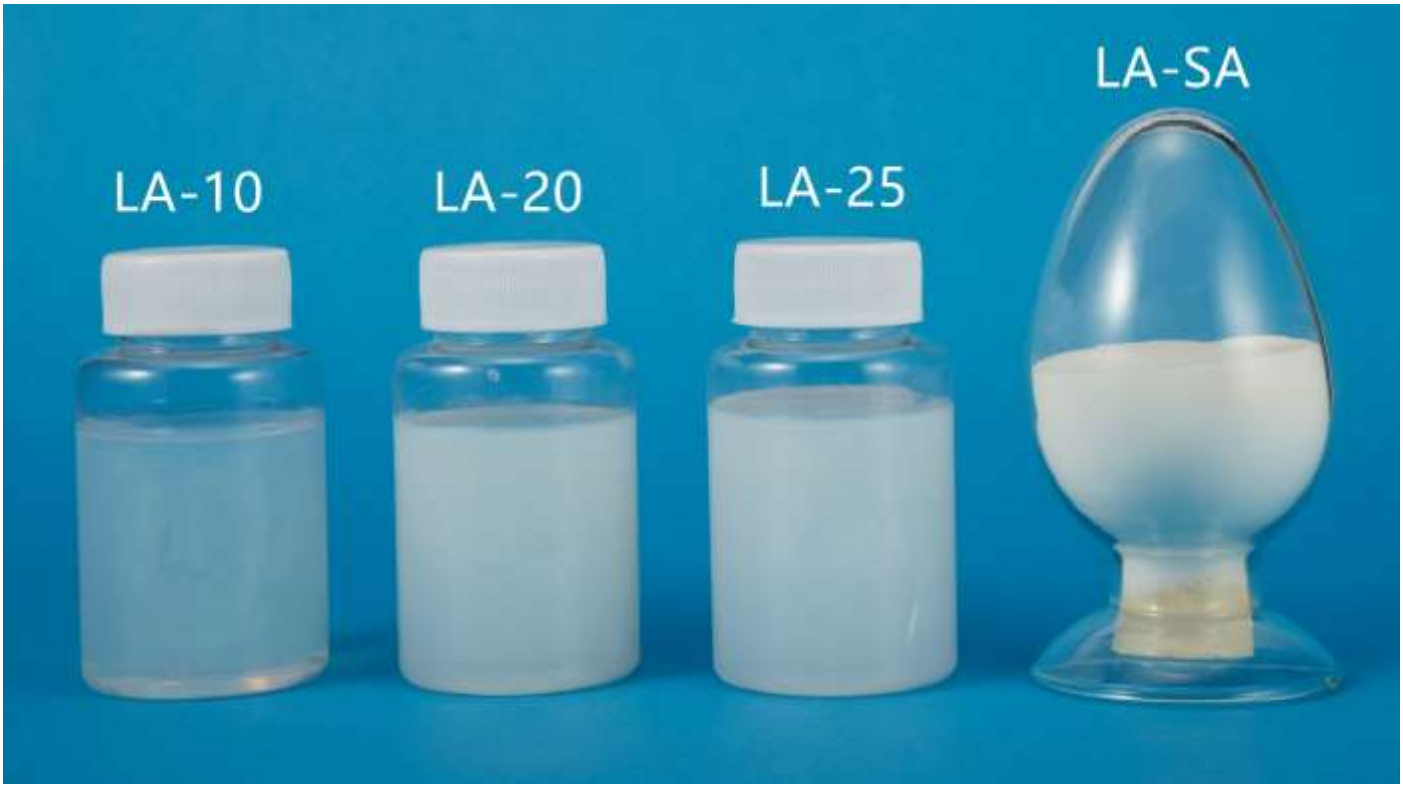
## Colloidal Alumina/Alumina Sol
## LA-10; LA-20; LA-25; LA-SA; SSLA-20

Colloidal Alumina (also called alumina sol) is nanometer aluminum hydroxide particles suspending in deionized water. The normal form is translucent or ivory-white liquid, can be transformed into dry powder through spray drying process, and could become liquid alumina sol again after dissolving in deionized water.

| Types | LA-10 | LA-20 | LA-25 | LA-SA | SSLA-20 |
|---|---|---|---|---|---|
| State | Translucent Liquid | Translucent Liquid | Translucent Liquid | Soluble White **Powder** | **Ivory-White** Liquid |
| $Al_2O_3$ % | 8.3 | 16.5 | 20.5 | 78 | 16.5 |
| $SiO_2$ % | 0.005 | 0.01 | 0.012 | 0.05 | 0.03 |
| $Fe_2O_3$ % | 0.001 | 0.002 | 0.003 | 0.01 | 0.002 |
| $Na_2O$ % | 0.005 | 0.01 | 0.012 | 0.05 | 0.01 |
| Solid content % | 10±0.5 | 20±0.5 | 25±0.5 | ≥95 | 20±0.5 |
| PH | 3.0-4.0 | 3.0-4.0 | 3.0-4.0 | 3.0-4.5 | 3.0-4.0 |
| BET SA ㎡/g | 160-200 | 160-200 | 160-200 | 160-220 | 120 |
| Specific gravity | 1.05-1.10 | 1.10-1.15 | 1.15-1.25 | 0.7-1.0 | 1.10-1.15 |
| Particle Size nm | 10-20 | 10-20 | 10-20 | 10-20 | 40-50 |

**Specifications can be customized for you!**

SSLA-20




◆ **Application & Advantages:**

Compared with silicon sol, alumina sol has better purity and could stands higher temperature. By now our clients mainly apply our Colloidal Alumina to below fields:

**1. Lithium battery anode material**

As covered agent for the anode material, mainly use LA-10.

**2. Antifoggant (for coating, greenhouse plastic film, etc.)**

Important raw material of plastic greenhouse film antifoggant.

**3. Coating of non-stick pan and glaze**

Compared with colloidal silica, Colloidal Alumina has better adhesion, and can stand higher temperature. After freezing, Colloidal Alumina could be reused after heated over 80℃, while colloidal silica can't be reused anymore. With these advantages, now our clients use Colloidal Alumina to entirely replace colloidal silica in non-stick pan coating field.

**4. Coating of Ceramic membrane**

Mainly our clients combine the Colloidal Alumina and colloidal silica with an ratio between Al2O3 and SiO2 from 8:2 to 7:3. This combination has better performance on hardness than solely use colloidal silica.

**5. Binder of catalyst carrier**

Colloidal alumina could help shaped carrier form and maintain its form during calcination.

**6. Addition in refractory**

Colloidal alumina can be added into refractory to increase pressure tolerance and tolerable temperature of the castable.

**7. Rigidizer for ceramic fiber**

Colloidal Alumina could completely seals dust and fibers on the surface of all cut or sanded fiber boards and shapes. This rigidizer has less tendency to migrate to the surface upon drying, resulting in a more uniform product.

**8. Addition for textile industry**

**(Acrylic aldehyde, polypropylene, nylon, polyester, wool,etc.)**

Colloidal Alumina can be used as anti-static additive, and also can significantly enhance the strength and abrasion resistance performance of fiber, can also make the textile looks and feels smoother and brighter.

## ◆ How to dissolve (for LA-SA):

Please use deionized water( electrical conductivity ＜5 will be better) to dissolve. The ratio between water and powder depends on the concentration you need. Please gently stir the water while gradually put powder into water when dissolve. Please stay the dissolved liquid for 24 hours before using, to let the alumina particle distribute more evenly.

## ◆ Packaging

25kg or 200kg plastic drum with pallet/ IBC Tank for liquid
20kg/25kg woven bag/Ton bag for powder

## ◆ Storage

Liquid alumina sol should not be subjected to temperature of 0℃ or below to avoid freezing. Shelf time 6 months.

Powder alumina sol LA-SA should not be subjected to moisture during storage. Shelf time 2 years.

## ◆ For more information or place an order: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**All About Alumina**

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