Hyaluronic Acid Filler 

Filler, beyond dermal fillers
SOSUM filler is a hybrid filler that satisfies the advantages of both monophasic viscosity and elasticity of biphasic made by cross-linking non-animal hyaluronic acid. Its safety is certified by the Korean Food and Drug Administration (MFDS) and the European Certification (CE). Its line-ups consist of 1ml and 3ml to provide maximum convenience for users.
**BRAND NAMING**

Naming of the SOSUM brand was originated from the Korean language “솟음” (referred to Lift off). The brand SOSUM is represented the sound of the Korean “솟음” the noun form of verb “솟아오르다”.

Idea of brand SOSUM is inspired by the images that skin is lifted and wrinkles are filled with the injection of fillers.

The SOSUM brand offers filler lines and professional cosmetics lines, and grows to become a specialized brand in dermatology and plastic surgery by continuously adding further lineup.
Filler for hydro-lifting
Adequate properties without loss even with multi-needle
Long persistence with cross-linking technology

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<tbody>
<tr>
<td>Thin wrinkles and hydro-lifting</td>
<td>Cross-linked hyaluronic acid 15mg/ml (1.5%)</td>
<td>Average &lt; 100㎛</td>
<td>Top of dermal layer</td>
<td>5ml syringe filled with 3ml</td>
<td>3ml*1syr/package</td>
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3ml syringe type for easy treatment when large amount of treatment is required

Hardest properties

1. Use
   - Deep wrinkles, contour improvement

2. Hyaluronic acid concentration
   - Cross-linked hyaluronic acid 20mg/ml (2%)

3. Particle size
   - Average < 1,200㎛

4. Skin layer to be injected
   - Dermis layer, Subcutaneous fat layer

5. Syringe
   - 3ml syringe filled with 3ml

6. Formulation
   - 3ml*3syr/package
It is used for fine wrinkles such as lips because of its lowest inject ability.

Soft property

1. Use
   - For fine wrinkles, lips

2. Hyaluronic acid concentration
   - Cross-linked hyaluronic acid 20mg/ml (2%)

3. Particle size
   - Average > 200㎛

4. Skin layer to be injected
   - Dermis layer

5. Syringe
   - 1ml syringe filled with 1ml

6. Formulation
   - 1ml*2syr/package
It is used for general wrinkles or deep smile lines

**General properties**

1. **Use**
   - For medium wrinkles, deep smile lines
2. **Hyaluronic acid concentration**
   - Cross-linked hyaluronic acid 20mg/ml (2%)
3. **Particle size**
   - Average > 500㎛
4. **Skin layer to be injected**
   - Dermis layer
5. **Syringe**
   - 1ml syringe filled with 1ml
6. **Formulation**
   - 1ml*2syr/package
It is used for deep wrinkles, nose or chin, etc. during surgical procedure and to add the sense of volume

Hard properties

1. Use
   - For medium wrinkles, deep smile lines

2. Hyaluronic acid concentration
   - Cross-linked hyaluronic acid 20mg/ml(2%)

3. Particle size
   - Average > 1,100㎛

4. Skin layer to be injected
   - Dermis layer, Subcutaneous fat layer

5. Syringe
   - 1ml syringe filled with 1ml

6. Formulation
   - 1ml*2syr/package
SOSUM filler was developed by JSBO with the cooperation of manufacturers and doctors based on the data that has been gained over 10 years of experience as the distributor of fillers. JSBO aimed to develop complete filler and to this end, it has selected 3 key features. **SOSUM fillers of JS Bio are based on these 3 key features** as follows.

First and utmost feature is **the safety in a sense that the patient should have no problems during or after the procedure**, if safety is not ensured, no matter how good the filler is, the benefits of the procedure will eventually get no points. In this sense, safety is the most important feature among all other benefits.

Second, it should give **convenience to use for surgeon**, in which surgeon should be comfortable to use in procedure. If the surgeon conveniently performs the procedure, patient’s satisfaction increases. Convenience increases the satisfaction to both surgeon and patient.

Third feature is **efficacy associated with the satisfaction** that patients can benefited from the procedure. Efficacy is divided into the duration of persistence, and non-movement and shape retention.
2-STEP PURIFY PROCESS

In the purification process, hyaluronic acid gel is directly exposed to saline. Along with cleaning the outer surface, saline moves through the hyaluronic acid gel by the osmotic principle and cleans BDDE and process by-products that may reside inside.

1st Purification
The hyaluronic acid gel is inserted directly into the saline and circulated after the reaction is completed, while the hyaluronic acid gel washes the surface and the internal by-products are replaced during the long-term.

Pulverization
When the 1st purification is completed, gel passes through the mesh and is pulverized into small particles to maximize the surface area for cleaning.

2nd Purification
Place finely pulverized hyaluronic acid particles with a wider surface area into the saline and recirculate it. The surface is washed and internal by-products of the hyaluronic acid gel are replaced for a long term.
**SAFETY**

The safety of the product is enhanced by minimizing residual BDDE and by-products generated in the process that may be remained in the product through the 2-step Purified System. Cha Meditech measures residual BDDE and by-products through GC analysis with the limit of detection (LOD) of 1ppm, which is lower than the 2ppm limit in order to manufacture and manage with the target of no residual BDDE detected.

![BDDE detection](image1)

**CONVENIENCE**

Injectability test compared to other fillers.

SOSUM Fillers has highly superior injectability compared to other competitors’ products, and despite its large volume (3ml), SOSUM HARD is similar to that of mono-phasic 1ml dermal filler. (The larger the volume, the higher the injectability)

The low injectability enables the surgeon to inject fillers with less force, enabling to perform procedure finely and delicately and increasing the satisfaction of the surgeon and patient.

![Injectability test compared to other fillers](image2)

**EFFICACY**

Intrabody persistence test result with the mouse shows that SOSUM product lasts longer persistence than the J-product and equivalent to that of R-product.

![Intrabody persistence test result with the mouse](image3)

16 weeks after injection

Hyaluronic Acid Filler

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