



## Raya Hyaluron Cationic

**INCI name:** Hydroxypropyl trimonium Hyaluronate

**Chemical description:** D-Glucuronsäure-N-Acetyl-D-Glucosamin  
Polymer

**Trade name:** Raya Hyaluron Cationic

**Molecular formula**  $(C_{14}H_{20}NO_{11}Na(1-x)(C_6H_{15}NOCl)_x)_n$

**Application:** Cosmetic

**Packaging:** in bags

**Filling quantity:** 1 kg/bag  
5 kg/bag  
Special packaging upon request

**Shelf life:** up to 2 years, not opened

**Storage conditions:** dry and cool  
avoid direct sunlight



## Product Specification Hyaluronic acid (Sodium Salt) **Cationic**

Test	Specification	Batch 20170708
<b>Appearance</b>	white powder or granules	conforms
<b>Identification</b>		
<b>Identification of CPC</b>	conforms	conforms
<b>Identification of Sodium</b>	conforms	conforms
<b>Assay of Clucuronic acid</b>	38 – 48 % (on dry base)	41.2 %
<b>Assay of Hyaluronic acid Cationic on dry base</b>	≥ 90 %	conforms
<b>Ph</b> (0.5 % aq.sol., 25 °C)	5.0 ~ 7.5	6.6
<b>Absorbance of solution</b> (0.5 % aq.sol., 25 °C)	$A_{280nm} \leq 0.25$	0.02
<b>Appearance of Solution</b> (0.5 % aq.sol., 25 °C)	$T_{550nm} \geq 99.0 \%$	99,8 %
<b>Molecular weight</b>	<b>&gt;1000 k Da</b>	<b>&gt;1000 k Da</b>
<b>Loss on drying</b>	≤ 10.0 %	7.14 %
<b>Residue on Ignition</b>	≤ 15 %	8.38 %
<b>Kinematic viscosity</b>	2 – 10 mm <sup>2</sup> /s	conforms
<b>Degree of cationization</b>	0.40 – 0.60	conforms
<b>Protein</b>	≤ 0.1 %	0.05 %
<b>Heavy mwrL (as Pb)</b>	≤ 20 mg/kg	< 20 mg/kg
<b>Bacteria counts</b>	≤ 100 cfu/g	< 10 cfu/g
<b>Yeast &amp; Mold</b>	≤ 50 cfu/g	< 10 cfu/g
<b>Pseudomonas aeruginosa</b>	negative	negative
<b>Staphylococcus aureus</b>	negative	negative

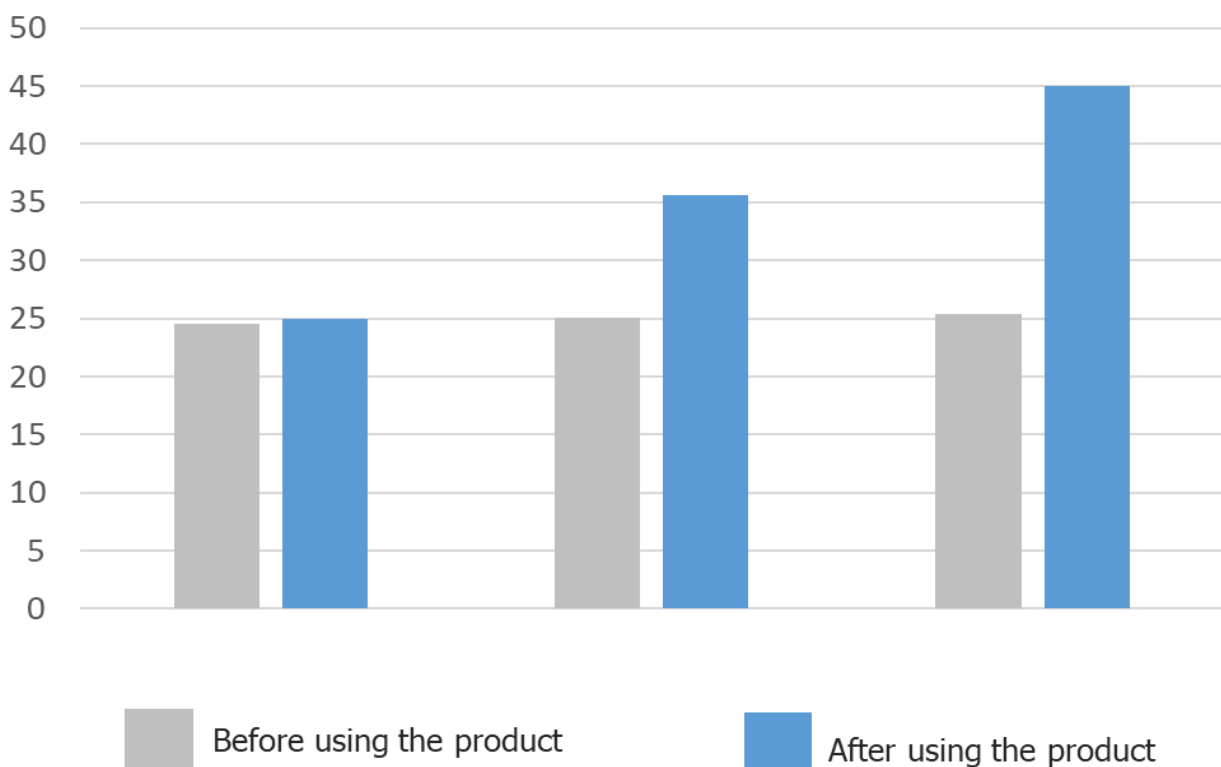
## MORE INFORMATIONS

Raya Hyaluron cationic is a kind of new product developed on the basis of ordinary sodium hyaluronate. Besides the same high moisturizing properties and high viscoelasticity as ordinary sodium hyaluronate, it also has a good adsorption property. It is used in hair care products and cleaning cosmetics products, and it can be adsorbed on the hair and skin surface to keep it in a moist state and it does not be washed away easily by rinsing water. When added Raya Hyaluron cationic into skin care products, you obtain good ductility of hairs. When it is used on skin the feeling is refreshing without any oily feeling. Skin becomes more moist and shinier by long-term use.

### Unique moisturizing properties

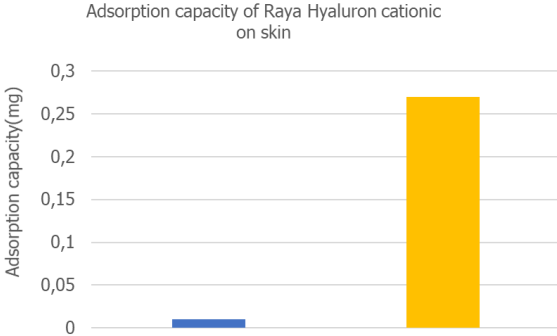
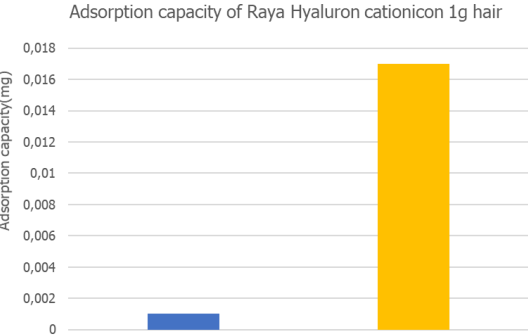
After using Raya Hyaluron cationic, the moisture content of the stratum corneum increased significantly, and the increased content was much higher than the ordinary sodium hyaluronate increased. This shows that the using of Raya Hyaluron cationic plays a better role in moisturizing than ordinary sodium hyaluronate.

**Schematic diagram of water content in stratum corneum**



### Good effect of adsorption and affinity

Raya Hyaluron cationic is more easily adsorbed on the skin and hair surface, and it is not easy to be washed away by water. It plays an important role in moisturizing long lasting and efficiently.



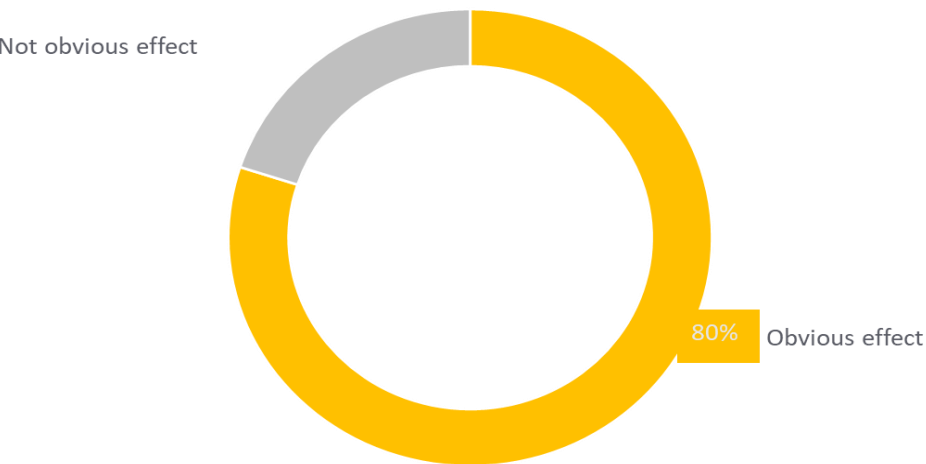
### Better skin feeling, be absorbed more easily

When adding Raya Hyaluron cationic into skin care products, you feel a good ductility when it is used also the skin feeling is refreshing without any oily feeling after use. Skin becomes more moist and shinier when long-term use.

Test Objects: 10 peoples (women)

Experimental Method: Administer Raya Hyaluron cationic to local skin (three times a day), three days later, the data collected confirmed if testers felt moisture and soft, and whether the degree of moist improved.

Skin sensory analysis after using Raya Hyaluron cationic



- Shampoo and hair care products:  
Shampoo, hair conditioner, hair mask, hair care agent, etc..
- Cleaning cosmetics products:  
Facial cleanser, cleansing cream, cleansing foam, soap, shower gel, etc..
- Skin care products:  
UV protection products, lotion, skin emulsion, cosmetic liquid, toner, etc..

### Product description

- ◆ Dosage recommended: 0.5%-1%
- ◆ Method of use: Can be dissolved in water directly, and has good compatibility. It can be used with majority moisturizing agent, oil, preservatives, surfactants, etc.

### Feuchtigkeitseffekt (Corneometrie)

