

Elravie[®] Premier

High Purity HA Dermal Filler

Elravie® Premier

Elravie is a combination of 'Ela' from elasticity and 'Vie' from life in French. Rejuvenate your skin vitality and elasticity via Elravie.

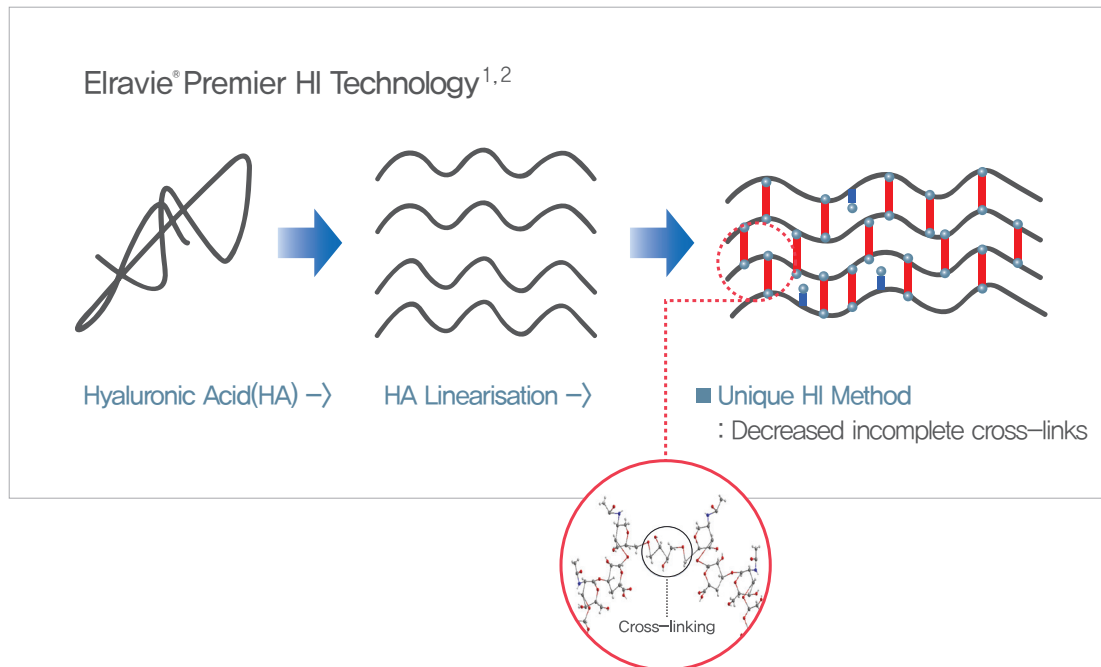


‘ela’sticity + ‘vie’(life)

HI (High molecular Ideal Reticulated Matrix) ¹

HI Technology

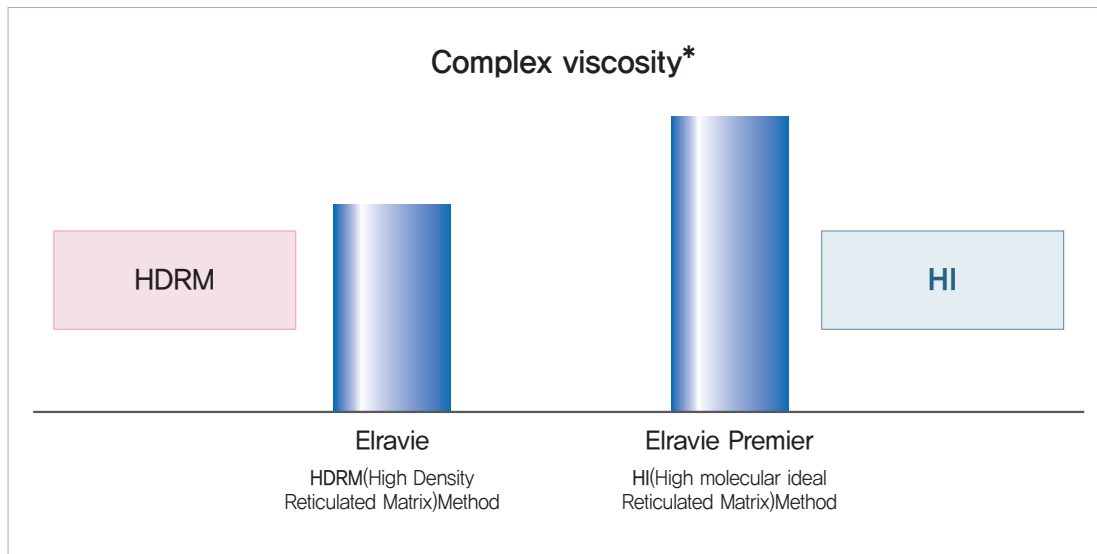
- A manufacturing method of cross-linking hyaluronic acid of a polymer which makes it into an ideal reticulated matrix.
- Reduces incomplete cross-links with low-temperature & long-time cross-linking ► Increased efficiency of cross-linking.



Elravie® VS Elravie® Premier

Humedix' innovative HI Method

- Compared to Elravie, Elravie Premier indicates a higher degree of complex viscosity while having similar physical property.
- Elravie has higher resistance against external force and shows stability. due to high complex viscosity

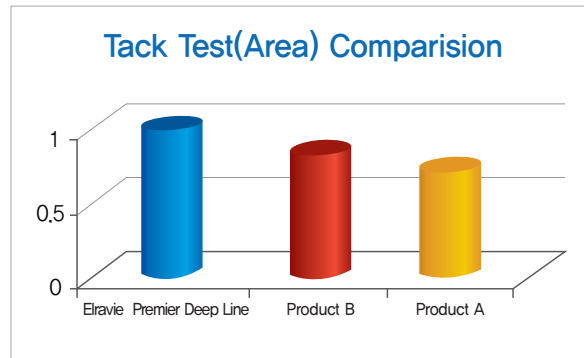
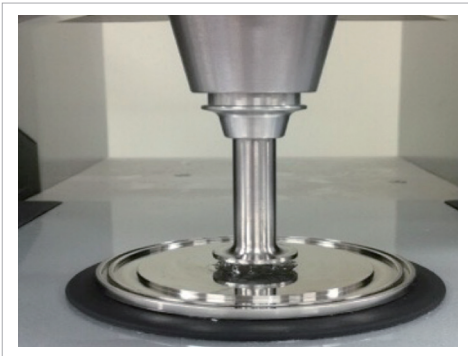


*Complex Viscosity: A unit that measures the degree of total deformation against an external force

Elravie® Premier's Cohesiveness

Comparison of results from Tack Test*

- Elravie Premier shows superior cohesiveness.



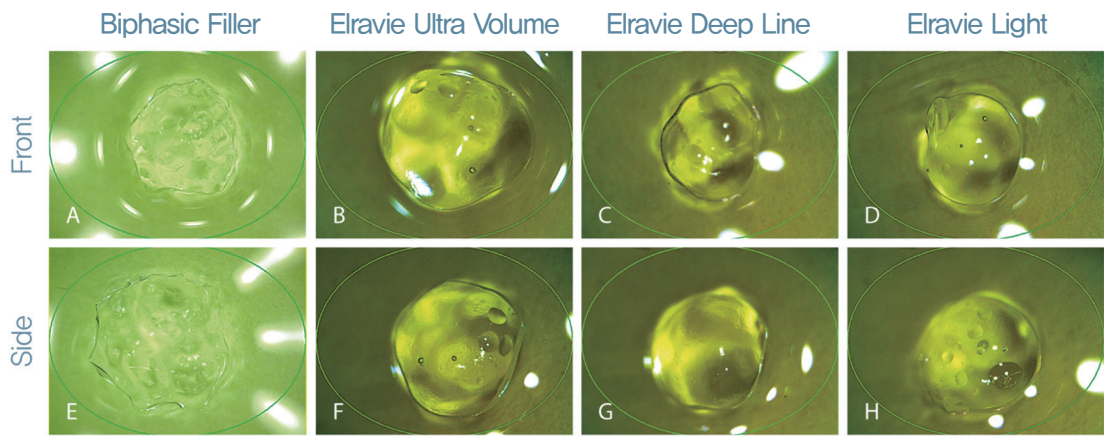
* Tack test :

Cohesiveness Force Measurement Test. It measures the maximum force of adherence to Rheometer spindle of the sample after it's pushed by the spindle. Higher value means higher cohesiveness.

Cohesiveness of Elravie® Premier

Elravie Premier applies to a various type of purpose in need of the smooth and forceful procedure.

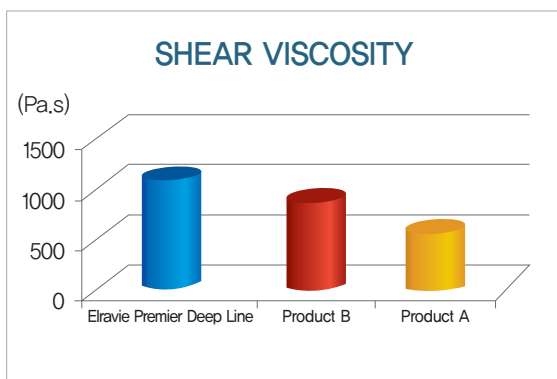
The shape of Elravie Premier



Comparison of Shear Viscosity & Yield Stress

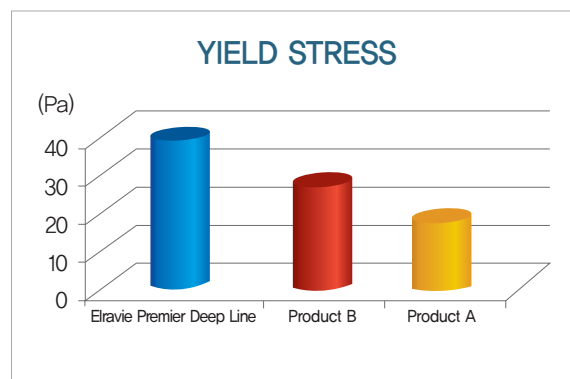
Elravie Premier shows

- Higher shear viscosity presenting stronger resistance against external force.
- Greater yield stress.



*Shear viscosity :

A degree of resistance to flow. It refers to the force that resists external force (shear force).



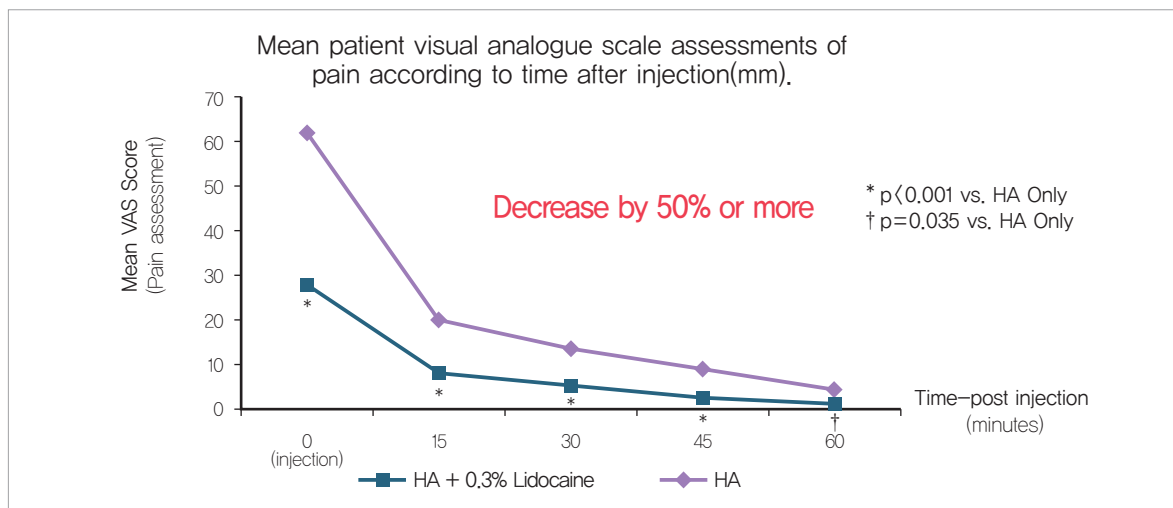
†Yield Stress :

The stress level at which a material ceases to behave elastically. It is a measure of the strength of the material structure.

When an object receives a load from the outside, it is returned to its original status before deformation until some point. However, if the load exceeds a certain value, the object cannot be restored to the initial status even if the load is removed, and the permanent deformation of a certain size is maintained.

Pain Relief Effect

HA fillers containing 0.3% lidocaine alleviates pain during/after the injection.¹



① Study design : Single-blind, Random allocation, Single-center, Split-face design

② Patients : 45 Adults who received similar wrinkle scores on both sides of the face (All Fitzpatrick skin type)

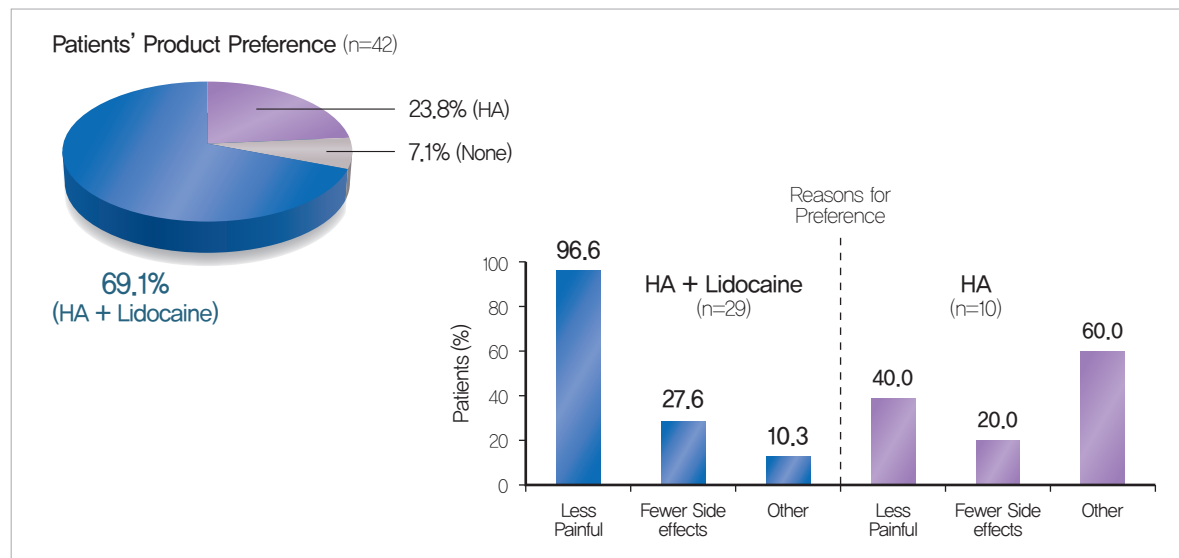
③ Treatment : Measures pain during/after the procedure utilizing VAS after the treatment on nasolabial folds; injection of HA with lidocaine on one side and injection of HA only without lidocaine on the other side.

HA has a relatively lower side effect profile since it is without species or chemical specificity. Treatments with adjunct lidocaine do not appear to significantly change this profile. **Several studies suggest adjunct Lidocaine decreases swelling, erythema, and even bruising.** The use of lidocaine with epinephrine in one study could affect the interpretation of these observations.

→ Through many studies, HA fillers containing lidocaine shows reduced side effects such as swelling, red spots, and bruise.²

Patients' Preference

HA fillers containing 0.3% lidocaine shows higher preference of patients after the injection.



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② Patients : 45 Adults who received similar wrinkle scores on both sides of the face (All Fitzpatrick skin type)

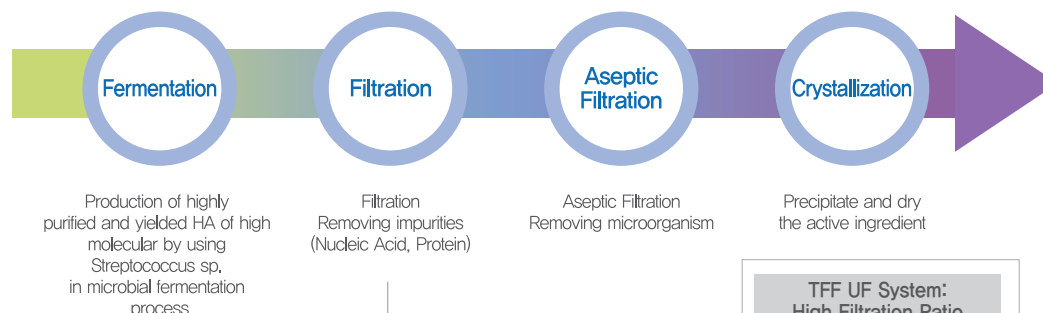
③ Treatment : Measures pain during/after the procedure utilizing VAS after the treatment on nasolabial folds; injection of HA with lidocaine on one side and injection of HA without lidocaine on the other side

High Purity HA Filler – Elravie® Premier

Immune-inducing material reduction

- Polymeric material from microbial fermentation
- Introduction of TFF UF (Ultra Filtration) System* in purification
- Aseptic high-purity HA of which the level of endotoxin and protein level is reduced by NIA[†], the unique manufacturing method

Process

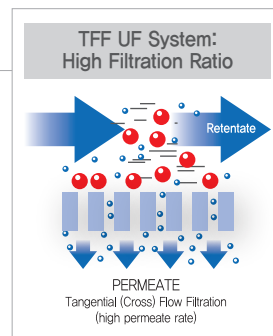


*TFF UF (Tangential Flow Filtration Ultra Filtration) System

: Ultra Filtration system that concentrates polymer and filters out impurities that are small in molecular weight.

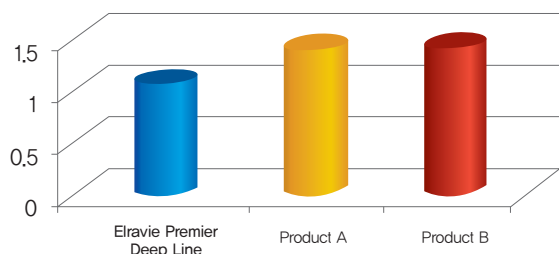
† NIA Method [Non Inflammation Asepsis]

: Technology to remove protein, hexane, endotoxin, and other inflammatory and exothermic substances by a membrane separation process



Uniform and Small Particle

Span (Particle Size Distribution Width) Comparison



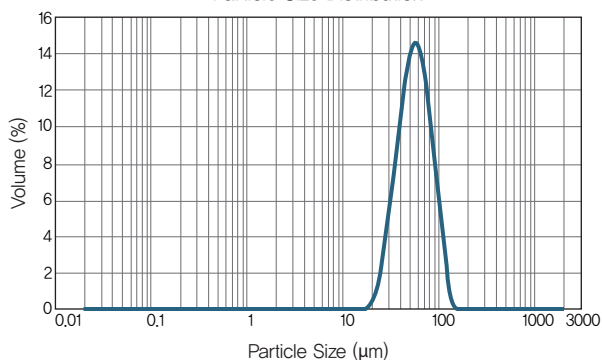
Uniform Particle

- The Span[§] value is close to 1.0 and particles are uniform with low value of Uniformity.[¶]

[§] Span: Left/Right Symmetry plot of the evaluation graph
(Perfect symmetry with a span value of 1)

[¶] Uniformity: The distribution of particles
(The lower the value, the closer and evenner the distribution)
(The lower the value, the sharper the graph)

Particle Size Distribution



Small Particle

- When measured with particle size analyzer, Elravie Premier indicated a low figure.

Product Name		Elravie Premier Deep Line	Product A	Product B
Categorize				
Particle Size Analysis Result	D(0.1)*	35,218	116,249	80,793
	D(0.5) [†]	59,885	238,911	156,738
	D(0.9) [‡]	99,536	453,917	304,559

*D(0.1): The particle size at 10% of the total distribution of matter.

[†] D(0.5): The particle size at 50% of the total distribution of matter.

[‡] D(0.9): The particle size at 90% of the total distribution of matter.

Proven long-term persistence (18 Months)

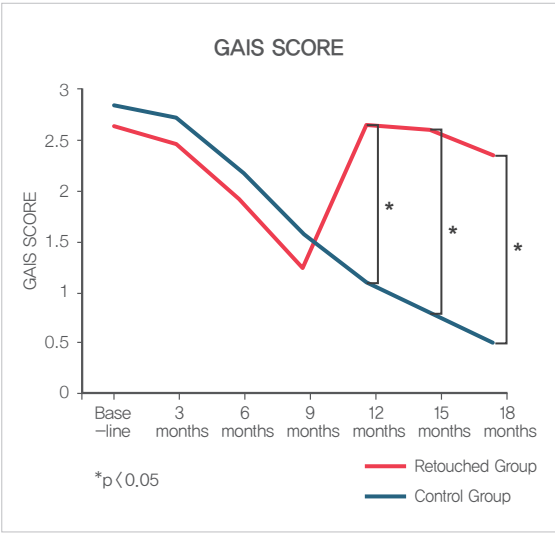
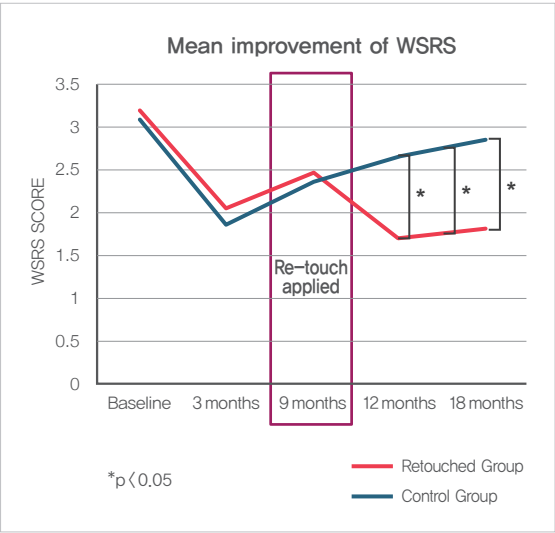
18 months lasted the effect of Elavie (HA-only product) with a single time re-touch

• WSRs
(Wrinkle Severity Rating Scale)

Degree	1	2	3	4	5
Des- cription	absent	mild	moderate	severe	Extreme

• GAIS
(Global aesthetic improvement scale)

Degree	-1	0	1	2	3
Des- cription	Worse	No change	Improved	Much improved	Very much improved



- ① Study design: Random allocation, Control Test
- ② Patients: 50 people with visible, moderate to severe nasolabial wrinkles
- ③ Treatment: After the same amount of HA in both nasolabial wrinkles, only the test group received re-touch 9 months after the first treatment; Evaluation of WSRs and GAIS.

Monophasic Volumizing Filler

– Elravie® Premier

- **Excellent Quality & Safety¹**

- High purity HA made with TFF UF System and NIA method(Non-Inflammation Asepsis), its level of protein and endotoxin is significantly lowered.^{2,3,4}
- HI Method(High molecular Ideal Reticulated Matrix) significantly reduces none cross-linking rate.¹
- The raw material of HA is pharmaceutical grade and the raw material of 'HA for arthritis' and has excellent biocompatibility.

- **Superb Effect & Duration⁵**

- Natural looking by smooth and strong HA gel; keeps volumizing by high cohesiveness and do not easily spread to other areas
- 18 months did the effect of Elavie (HA-only product only) last with one-time re-touch.

- **Convenient Procedures**

- User-friendly finger grip assures delicate procedure.
- TW (Thin Wall) needle and cannula are included to provide the convenience of a procedure

- **Famous Reputation**

- As a second brand to be launched in Korea, its quality and reputation are assured throughout long-term clinical usage within doctors/patients.
- Elravie received the Jang Young-Sil(Famous inventor in Korea) Award in 2014 and the Consumer's Choice Filler Award in 2016.
- Elravie is officially registered in Europe(CE), China(CFDA), Indonesia, Iraq, Iran, Vietnam, Republic of Dominica and is under registration worldwide.

Ref) 1. Data on file, Humedix.(RER-15-007. 2015.)

2. Data on file, Humedix.(PVR-B01-1602-01. 2016.)

3. Data on file, Humedix.(PVP-B01-1602-01. 2016.)

4. Data on file, Humedix.(RER-16-009. 2016.)

5. Park KY, et al. *Journal of Dermatology Research and Therapy*. 2016;1(2):5-11.

With Lidocaine



Elrvie Light-LC 1mL
HA concentration • •
23mg/mL, 0,3% Lidocaine
Volume • • • • •
1,0mL
Needle • • • • •
30G Thin Wall needle



Elrvie Deep Line-LC 1mL
HA concentration • •
23mg/mL, 0,3% Lidocaine
Volume • • • • •
1,0mL
Needle • • • • •
27G Thin Wall needle
23G 50mm TW Cannula



Elrvie Ultra Volume-LC 1mL
HA concentration • •
23mg/mL, 0,3% Lidocaine
Volume • • • • •
1,0mL
Needle • • • • •
23G Thin Wall needle
22G 50mm TW Cannula



Elrvie Ultra Volume-LC 2mL
HA concentration • •
23mg/mL, 0,3% Lidocaine
Volume • • • • •
2,0mL
Needle • • • • •
21G Thin Wall needle
22G 50mm TW Cannula

Without Lidocaine(CE)



Elrvie Light Plus 1mL
HA concentration • •
20mg/mL
Volume • • • • •
1,0mL
Needle • • • • •
30G Thin Wall needle



Elrvie Deep Line Plus 1mL
HA concentration • •
23mg/mL
Volume • • • • •
1,0mL
Needle • • • • •
27G Thin Wall needle

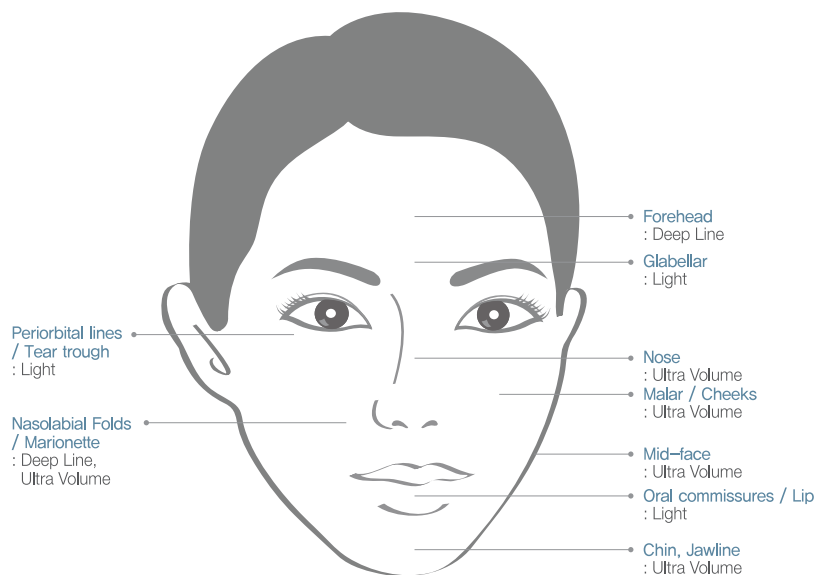


Elrvie Ultra Volume Plus 1mL/2mL
HA concentration • •
23mg/mL
Volume • • • • •
1mL/2mL
Needle • • • • •
1mL : 23G Thin Wall needle
2mL : 21G Thin Wall needle

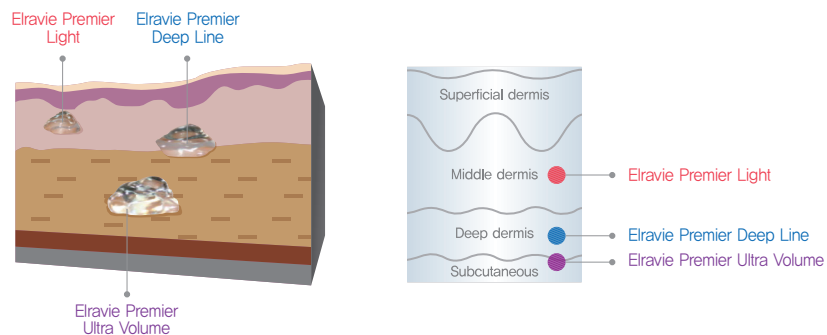


Elrvie Balance 1,5mL
HA concentration • •
20mg/mL, 0,3% Lidocaine
Volume • • • • •
1,5mL
Package • • • • •
1,5mL X 2syr.

Procedure part of product line “Elravie Premier”



Injection point of product line “Elravie Premier”



Elravie[®] Premier

High Purity HA Dermal Filler

Manufactured By



17, Bio Valley 2-ro, Jecheon-si, Chungcheongbuk-do, Korea

Humedix is a family company of Huons and is a bio company that manufactures and researches HA raw material production and HA related joint injections, ophthalmic eye drops, ophthalmic viscoelastics, anti-adhesion agents and functional cosmetics.