



*Dermalax*TM
CROSS LINKED HYALURONIC ACID

THE CHAEUM[®]
— PREMIUM —

DermalaxTM & THE CHAEUM[®] reshapes your face, youth and life!



Supreme & Pure monophasic crosslinked HA soft tissue filler

manufactured by a state-of-the-art technology of Hugel; its stabilized and even HA structure is achieved through **long crosslinking time at low temperature**.

Customizable viscoelasticity & HA concentration of DermalaxTM & THE CHAEUM[®] provide various treatments and indications giving optimum results and maximizing satisfaction.

High
Elasticity

Longer
Duration

Advanced
Safety

Natural
Look

Dermalax TM	Plus	Deep Plus	Implant Plus
HA Concentration	20 mg/mL	24 mg/mL	24 mg/mL
G' Value	80 ± 15 Pa	160 ± 15 Pa	280 ± 15 Pa
Lidocaine	Lidocaine 0.3%		
Injection Depth	Superficial dermis	Mid, deep dermis	Subcutaneous layer
Storage	Storage between 2~25°C, and protect from direct sunlight and freezing		
Shelf Life	24 months		
Approval Status	CE Certified		

THE CHAEUM [®]	Premium No.1	Premium No.2	Premium No.3	Premium No.4
Crosslinking Rates	●●●●●	●●●●●	●●●●●	●●●●●
Gel Type				
HA Concentration	24 mg/mL	20 mg/mL	20 mg/mL	20 mg/mL
G' Value	80 ± 15 Pa	180 ± 15 Pa	300 ± 15 Pa	400 ± 15 Pa
Lidocaine	Lidocaine 0.3%			
Injection Depth	Superficial, Mid dermis		Mid, deep dermis	Subcutaneous layer
Storage	Storage between 2~25°C, and protect from direct sunlight and freezing			
Shelf Life	24 months			

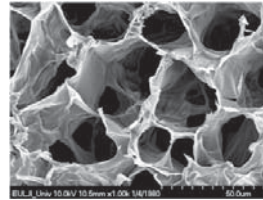
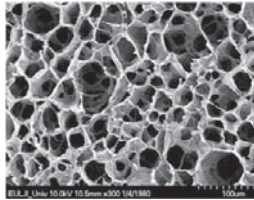
EVEN CROSSLINKING

Even crosslinking technology offers the regular and dense lattice

SEM (Scanning Electron Microscope)

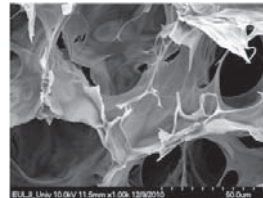
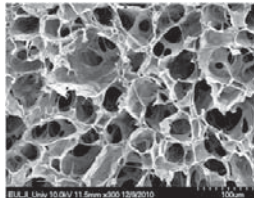
Dermalax™ THE CHAEUM®
PREMIUM
(Monophasic)

- Regular & Dense lattice



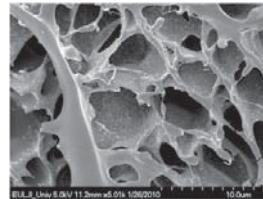
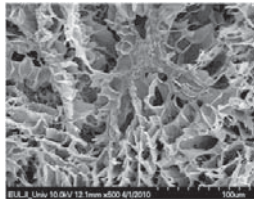
Product A
(Monophasic)

- Irregular Structure



Product B
(Biphasic)

- Irregular Structure

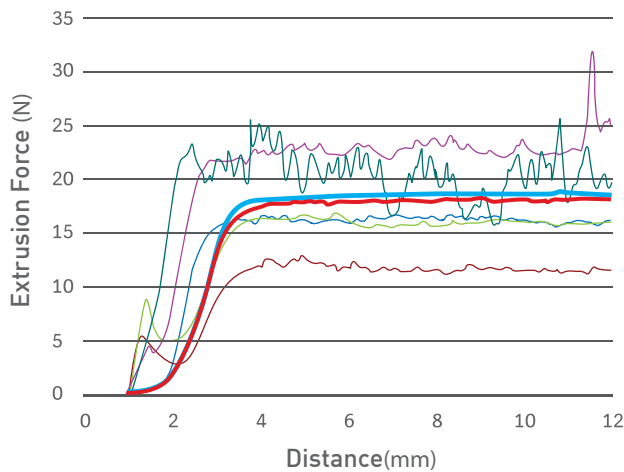


Ref) In-house

Constant extrusion force allows smooth injection

EXTRUSION FORCE VS. DISTANCE

[Standard: 12~25N]

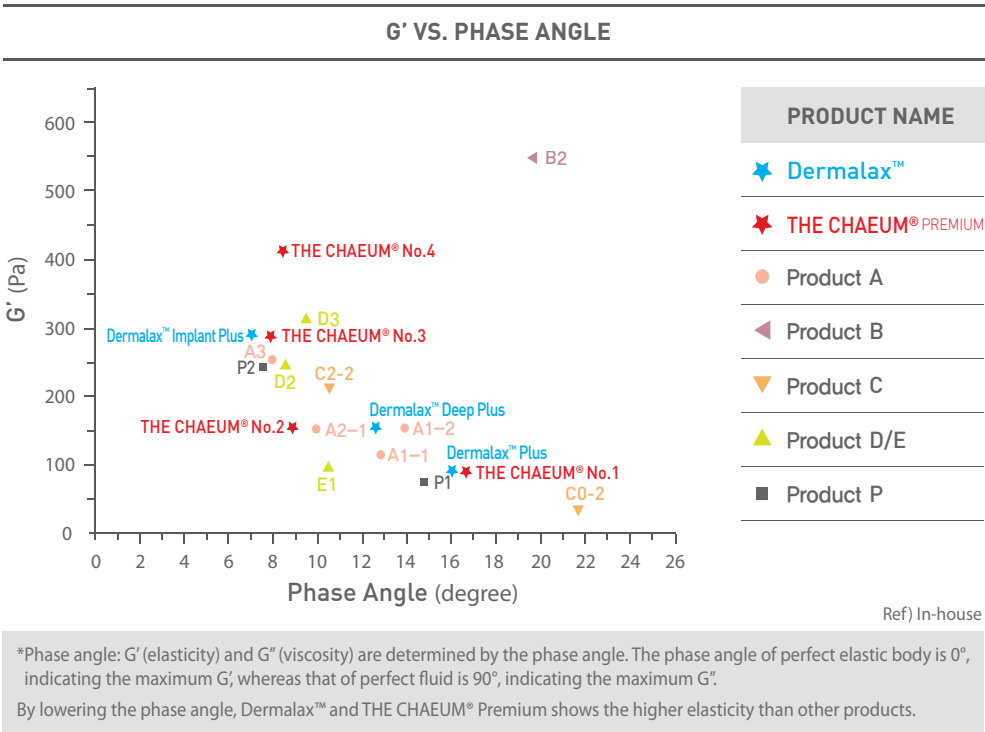


PRODUCT NAME	N
Dermalax ™	18.5
THE CHAEUM ® PREMIUM	17.3
A0	16.3
A1-1	11.7
B1	16.0
C2-1	23.1
H	20.2

Ref) In-house

HIGH ELASTICITY

Superior elasticity due to low phase angle results in faster elastic recovery rate



Maintaining the shape with the stable formation *in vivo*
indicates the importance of the phase angle

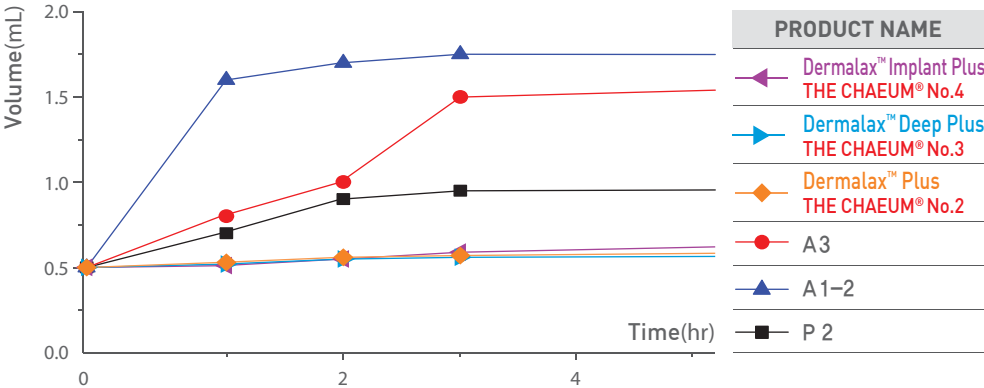
Formation test <i>in vivo</i>			
	0 hr	Day 10	Day 30
Dermalax™ THE CHAEUM® PREMIUM (Phase angle 7.4)			
Product A (Phase angle 7.8)			
Product B (Phase angle 11.3)			

Ref) Safety & Efficacy evaluation of HA (Hyaluronic Acid) Dermal filler (*in vivo*), Chung-Ang University Hospital, 2014

100% CROSSLINKED HA

100% crosslinked HA without non-crosslinked HA as lubricant
minimizes the initial swelling

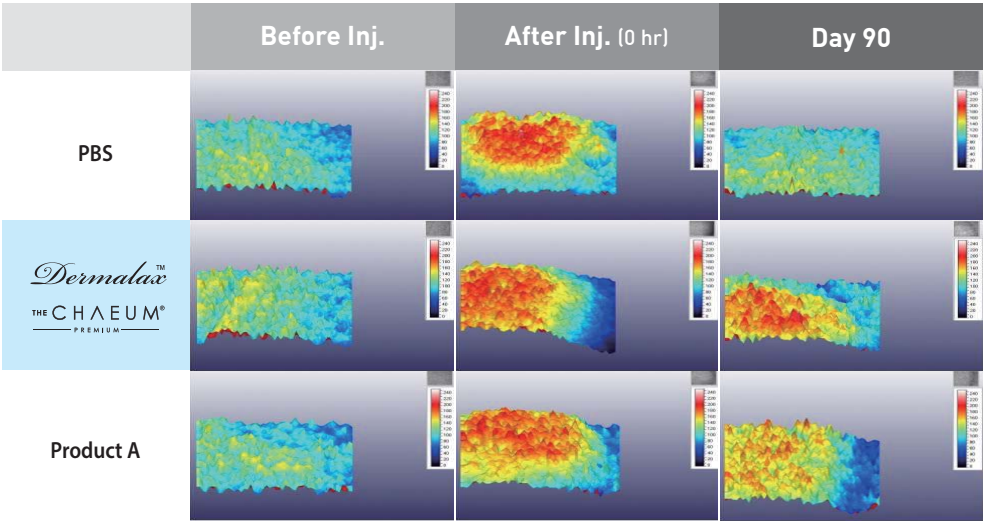
Water Swelling Test



hr	Dermalax™ Implant Plus THE CHAEUM® No.4	Dermalax™ Deep Plus THE CHAEUM® No.3	Dermalax™ Plus THE CHAEUM® No.2	A3	A1-2	P2
0	0.5	0.5	0.5	0.5	0.5	0.5
1	0.51	0.52	0.53	0.8	1.6	0.7
2	0.55	0.55	0.56	1	1.7	0.9
3	0.59	0.58	0.59	1.5	1.75	0.95

Ref) In-house

Duration test *in vivo*



Ref) Safety & Efficacy evaluation of HA (Hyaluronic Acid) Dermal filler (*in vivo*), Chung-Ang University Hospital, 2014

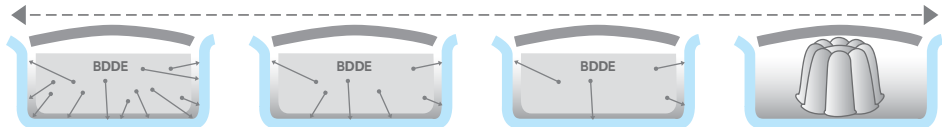
ADVANCED SAFETY

Inflammation and allergic reaction are minimized through the strict control of endotoxin, BDDE residue, and protein load

Dialysis

14~15 days of dialysis to minimize BDDE residue

1Day >>>> Safety is maximized



Spontaneous movement of BDDE from an area of high concentration to low concentration minimizing BDDE residue

Safety Data

	Dermalax™ & THE CHAEUM® PREMIUM	Product A	Product B	Product C
Endotoxin (EU/mL)	<0.03	0.5	0.5	0.2
BDDE (ppm)	<0.5	<2	0.5	<2
Protein Load (ppm)	<0.05	N/A	<0.06	0.05

(Ref) In-house

- Endotoxin ↓ = Inflammation ↓ (redness, edema, pain, fever)
- Protein load ↓, BDDE ↓ = Allergic reaction ↓

INDICATIONS

Dermalax™
CROSS LINKED HYALURONIC ACID
IMPLANT PLUS

THE CHAEUM®
PREMIUM
N°3

Dermalax™
CROSS LINKED HYALURONIC ACID
PLUS

THE CHAEUM®
PREMIUM
N°1, N°2

Dermalax™
CROSS LINKED HYALURONIC ACID
IMPLANT PLUS

THE CHAEUM®
PREMIUM
N°3

Dermalax™
CROSS LINKED HYALURONIC ACID
DEEP PLUS

THE CHAEUM®
PREMIUM
N°1, N°2

Dermalax™
CROSS LINKED HYALURONIC ACID
IMPLANT PLUS

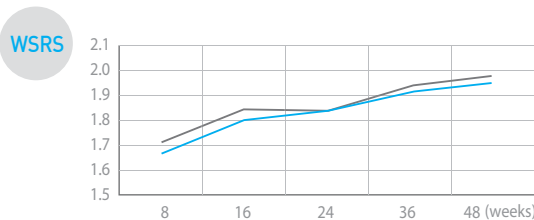
THE CHAEUM®
PREMIUM
N°4

CLINICAL RESULTS

In a pivotal clinical study conducted for 48 weeks (pre-protocol group n=60), the safety and efficacy of Dermalax™ & THE CHAEUM® were compared with that of the reference device which was approved for its claim of 18 month-duration by US FDA

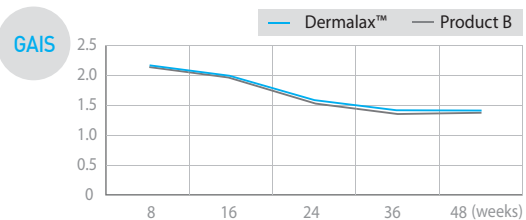
24 weeks - **91%** of subjects showed the wrinkle improvement at 24 weeks

48 weeks - **83%** of subjects showed the wrinkle improvement after 1 year
 - Subjects who showed 2-level or higher improvement:
Dermalax™ & THE CHAEUM® 64% vs. Reference device 54%



The Wrinkle Severity Rating Scale (WSRS)

- 5 Extreme
- 4 Severe
- 3 Moderate
- 2 Mild
- 1 Absent



Global Aesthetic Improvement Scale (GAIS)

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

CONCLUSION

- ▶ The safety profile of Dermalax™ & THE CHAEUM® and the reference device was comparable.
- ▶ The clinical trial verified that Dermalax™ & THE CHAEUM® is an effective and safe medical device for the wrinkle improvement.

Ref) A Randomized, Multi-center, Patient & Evaluator-blind, Matched pairs, Active-controlled design Clinical Study to Evaluate the Efficacy and Safety of Injection with Dermalax (Deep) as Compared to Restylane® in correction of Nasolabial fold, Chung-Ang University Hospital, Eulji General Hospital, 2014