Singderm® Collanat

Cross-linked Sodium Hyaluronate Gel with PLLA Microspheres

NEXT-GEN HYBRID BIO-STIMULATORS: LONG-TERM COLLAGEN BOOSTING +IMMEDIATE FILLING

Singderm® Collanat

Cross-linked Sodium Hyaluronate Gel with PLLA Microspheres

Hangzhou Singclean Medical Products Co., Ltd.

Add: No.125(E),10th Street, Hangzhou Qiantang Area, Zhejiang, China P.C.: 310018
Tel: +86-571-63431868 Fax: +86-571-63431886
www.Singderm.com

1 Singderm® Collanat PLLA-HA Filler Introduction

Singderm® Collanat PLLA-HA Filler, combines PLLA and HA for dual-action facial rejuvenation. PLLA stimulates collagen for gradual wrinkle reduction and volume restoration, while HA provides instant hydration and plumping. This minimally invasive treatment delivers both immediate improvements and long-term anti -aging benefits, ensuring natural-looking results with a single procedure.

Singderm® Collanat Details

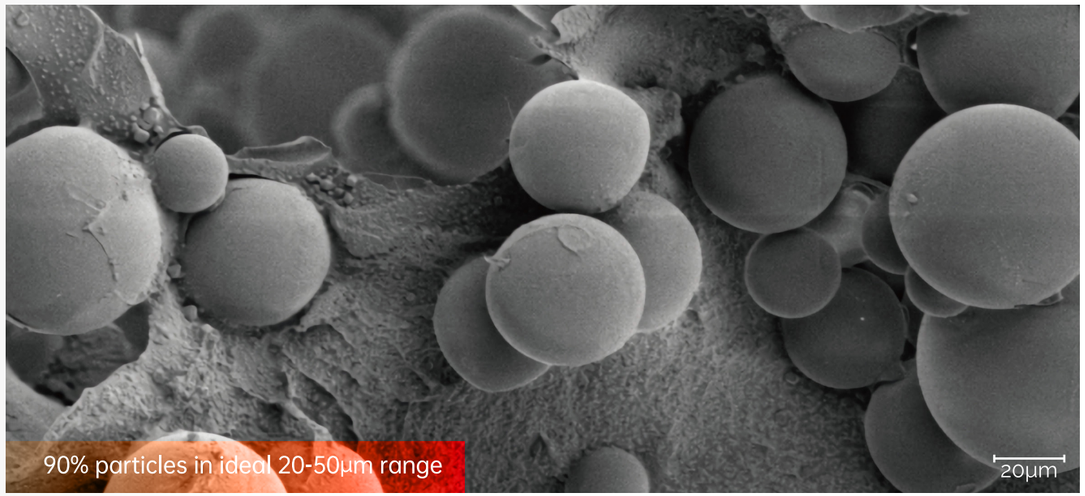
Appearance	Milky white gel
Core Ingredient	· 17mg/mL Sodium Hyaluronate（including cross-linked sodium hyaluronate and non-cross-linked sodium hyaluronate） · 16% PLLA microsphere · 0.3% Lidocaine
Specification	· 0.5 mL, 0.75 mL, 1.0 mL, 2×0.75 mL, 2×1.0 mL; supplied with 27G injection needles · 1.5 mL, 2.0 mL; supplied with 26G injection needles.
Indications	Intended for deep dermis, superficial and deep subcutaneous layers injecting and filling to correct moderate and severe wrinkles.
Injection Layer	Deep dermis, superficial and deep subcutaneous layers.
Efficacy	Instant fill and long-lasting collagen stimulation
Suitable For	Mid-face volume reconstruction (such as cheeks and temples), lower face lifting (such as jawline), for those who pursue natural and gradual effects
Expected effect time	2 Years

The Technology of Singderm® Collanat PLLA-HA Filler

In Singderm® Collanat, cross-linked HA gel was prepared using patented technology. After shearing and homogenization, the gel was mixed with PLLA multi-stage screening microspheres through gradient dispersion technology to form a "microsphere-gel" uniform composite system.

This made this product have the characteristics of smooth injection, high viscoelasticity, and excellent shaping effect.

2 SEM of Singderm® Collanat PLLA-HA Filler

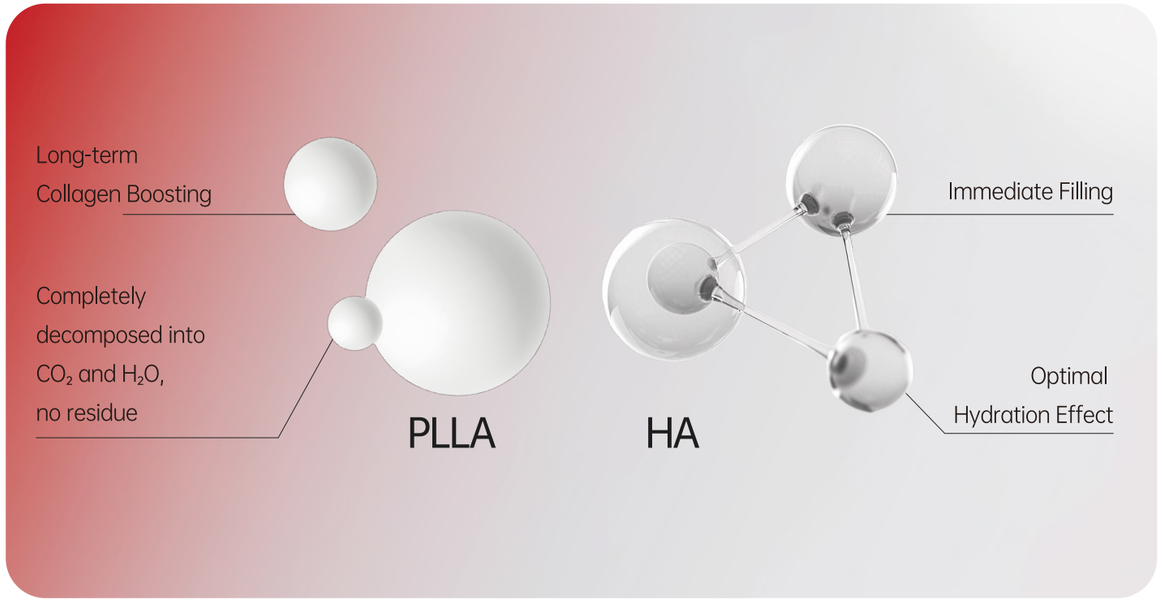


PLLA-HA SEM: PLLA microspheres are evenly distributed inside the HA gel, and the PLLA microspheres are distributed in intervals.

(1) The uniform distribution of PLLA inside the HA gel can reduce the vesicle clusters caused by PLLA aggregation and reduce the probability of nodules; the interval distribution between PLLA microspheres is conducive to cell infiltration, thereby promoting collagen regeneration.

(2) PLLA microspheres are uniformly spherical, smooth in surface, and compact in internal structure.
The smooth surface can reduce foreign body stimulation after implantation, and is more conducive to cell wrapping to stimulate collagen regeneration; The solid structure can delay degradation, prolong the time to stimulate collagen regeneration, and increase the duration of the filling effect.

03 Mode of Action — Dual Mode



Stage	0-12 Months	12-24 Months
HA Mechanism	Physical Filling, immediate Sculpting → Gradual Degradation, transitioning to Collagen Regeneration Phase	Fully metabolized
PLLA Mechanism	Immune Activation → Stimulates Collagen Synthesis (Type I, Type III)	PLLA microparticles gradually degrade, stimulating fibroblasts to regenerate and continue to work → Stable effect
Effects	Immediate Sculpting + Skin Texture Improvement	Natural firmness + Long-term lifting

04 Advantage

Dual-Action Anti-Aging

· Instant HA volumizing (12-month hydration & contouring)
· Sustained PLLA renewal (long-term tightening, elasticity, and radiance)

Ready-to-Use Convenience

Not like traditional PLLA-HA filler, no mixing required — direct injection for faster, simpler, and more reliable treatment.

Optimized Particle Size

90% particles in ideal 20-50μm range for longer-lasting effects & enhanced safety.

Comfortable Treatment Experience

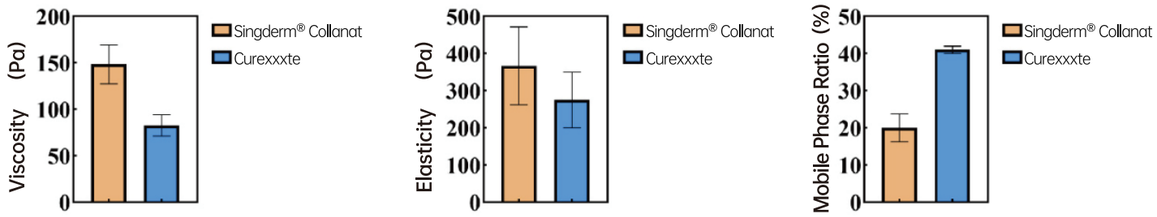
Built-in lidocaine minimizes discomfort for a smoother and more pleasant experience.

Natural-Looking & Long-Lasting Results

Milky-white gel reduces light refraction, ensuring natural-looking rejuvenation.

5 Singderm® Collanat Comparison With Other PLLA-HA Filler

The below viscoelastic test results show a significant difference between HA in Singderm® Collanat PLLA-HA filler and HA in Curexxxte PLLA-HA filler.



Comparative Advantages of Singderm® Collanat:

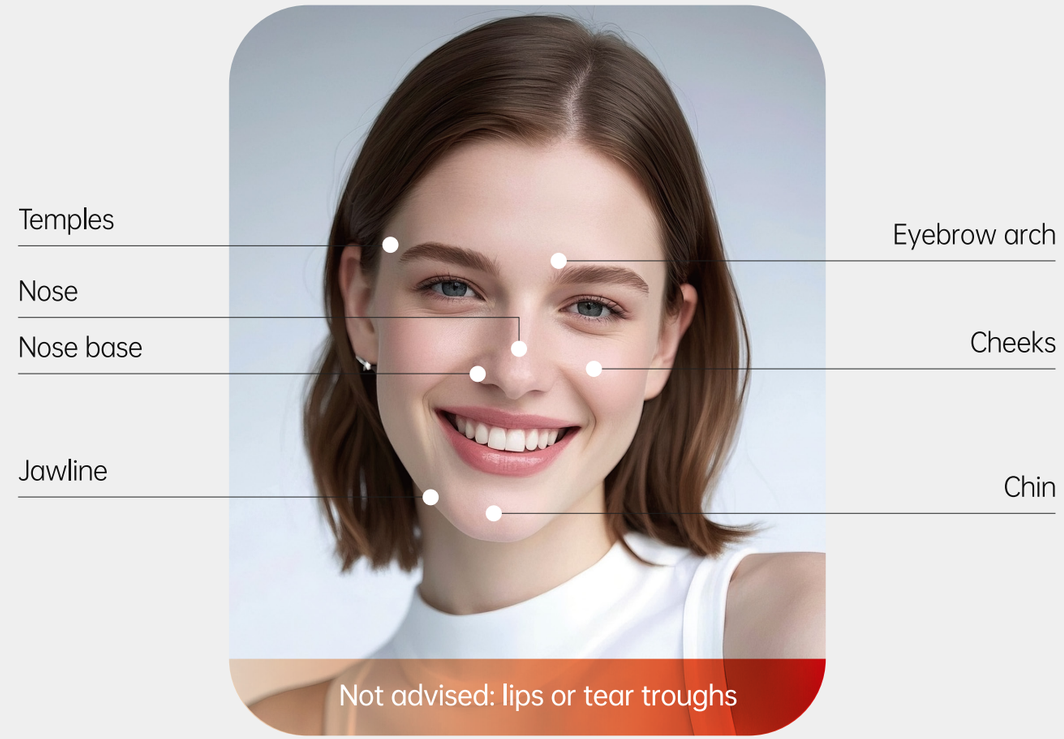
- ✓ **Higher Viscosity** → Strong resistance to migration, minimal diffusion after injection, **ensuring precise shaping.**
- ✓ **Higher Elasticity** → Ideal for deep-layer implantation, providing **superior structural support** and contouring capabilities.
- ✓ **Higher Cross-Linked HA Content** → Enhanced mechanical strength, delivering **better shaping results and longer durability.**

6 PLLA Material Comparison With Other Regenerative Materials

Materials	PLLA	PCL	PMMA
Advantages	High biocompatibility, gradual effect, long-lasting effect (2 years)	High biocompatibility, easy processing and manufacturing, long -lasting effect (⩾1 year)	Good biocompatibility, long-lasting effect
Disadvantages	The effect is not permanent, and the cost is relatively high	Long degradation and metabolism time (usually 3-4 years to completely degrade, does not meet the needs of rapid)	irreversibility, risk of allergic reactions and complications, non -absorbable

7 Injection Site

Areas that need shaping or lifting:



8 Duration

Effect of single injection lasts 18-24 months

9 FAQ

Q: How long do the results last? When is a touch-up needed?

A: Initial results typically last 18-24 months. A follow-up treatment around 9 months is recommended for optimal maintenance.

Q: Does Singderm® Collanat leave any harmful residue?

A: The product consists entirely of biocompatible, autologous components that are fully metabolized by the body with no harmful residues.

Q: Why can Singderm® Collanat brighten skin tone?

A: The PLLA microspheres stimulate collagen production in skin connective tissue. As poly-L-lactic acid gradually breaks down, it continuously activates fibroblasts to secrete more collagen. This dual collagen-stimulating mechanism nourishes the skin, resulting in a brightening effect.