

HYASIL™ System

TECHNICAL APPLICATION PROTOCOL

HYASIL™ PLATFORM — MULTIPLE HAIR APPLICATIONS

Each application uses the same core function (ECM + hydration + structural support) but is modulated with different actives and formats.

1 ANTI-HAIR LOSS / DENSITY SYSTEM

Format:

- Ampoules (professional)
- Daily serum

Role of HYASIL™:

- Reinforces follicular anchoring
- Improves delivery of growth actives
- Reduces micro-environment degradation

Suggested Actives:

- PDPLEX-S™ (core)
- Copper peptides
- Caffeine
- Niacinamide

Positioning:

"Follicular Activation + Scalp Structure Reinforcement"

2 SCALP REPAIR / POST-PROCEDURE SYSTEM

Format:

- Sterile ampoule
- Soothing serum / gel

Role of HYASIL™:

- Accelerates barrier recovery
- Reduces TEWL + irritation

- Supports ECM rebuilding post-damage

 Suggested Actives:

- Panthenol
- Ectoin / Trehalose
- PDRN / PN
- Madecassoside

 Positioning:

“Scalp Recovery & ECM Restoration Therapy”

 Ideal after:

- Microneedling
- PRP
- Laser

HYDRATION & DRY SCALP THERAPY

 Format:

- Leave-in scalp serum
- Spray mist

 Role of HYASIL™:

- Creates long-lasting hydration reservoir
- Restores scalp comfort + flexibility

 Suggested Actives:

- Glycerin
- Urea (low %)
- Betaine
- Aloe extract


 Positioning:

“Deep Hydration + Scalp Comfort System”

OILY / SEBUM-REGULATING SCALP SYSTEM

 Format:

- Lightweight tonic
- Balancing serum

 Role of HYASIL™:

- Maintains hydration without heaviness
- Prevents rebound sebum overproduction
- Stabilizes microenvironment

 Suggested Actives:

- Zinc PCA
- Niacinamide
- Salicylic acid (low %)
- Green tea extract

 Positioning:

“Balanced Hydration Without Oil Overload”

5 ANTI-AGING SCALP / HAIR QUALITY SYSTEM

 Format:

- Serum or lotion
- Night repair treatment

 Role of HYASIL™:

- Supports collagen & elastin integrity
- Improves scalp firmness
- Enhances hair fiber quality at root level

 Suggested Actives:

- Peptides (Matrixyl-type)
- Resveratrol
- CoQ10
- Amino acids

 Positioning:

“Scalp Longevity & Hair Quality Enhancement”

HAIR THICKENING / ROOT VOLUME BOOSTER

Format:

- Root lift spray
- Styling-treatment hybrid

Role of HYASIL™:

- Improves root hydration + expansion
- Creates plumping effect at follicular base
- Enhances fiber appearance

Suggested Actives:

- Hydrolyzed proteins
- Polymers (film formers)
- Panthenol

Positioning:

“Immediate Root Density + Structural Support”

SENSITIVE / INFLAMED SCALP SYSTEM

Format:

- Calming serum
- Dermatological treatment

Role of HYASIL™:

- Reduces irritation via barrier support
- Stabilizes ECM under inflammatory stress

Suggested Actives:

- Allantoin
- Bisabolol
- Oat extract
- Ceramides

💡 Positioning:

"Barrier Repair for Reactive Scalp"

8 HAIR GROWTH BOOSTER (ADJUNCT SYSTEM)

🧴 Format:

- Booster serum (to combine with treatments)

⚙️ Role of HYASIL™:

- Acts as delivery enhancer
- Improves penetration of actives (e.g. Minoxidil alternatives)

🧴 Suggested Actives:

- Redensyl / Capixyl (if used)
- Peptides
- Botanical stimulants

💡 Positioning:

"Scalp Delivery Enhancement System"

🧠 PLATFORM STRATEGY (KEY INSIGHT)

You now have:

One Core Technology → Multiple SKUs

HYASIL™ = Backbone across all lines

This enables:

- Strong brand consistency
 - Easier clinical storytelling
 - Modular product expansion
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🔗 PORTFOLIO ARCHITECTURE EXAMPLE

- HYASIL™ REPAIR → Post-procedure
- HYASIL™ DENSIFY → Hair loss
- HYASIL™ BALANCE → Oily scalp

- HYASIL™ HYDRA → Dry scalp
 - HYASIL™ CALM → Sensitive scalp
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MASTER CLAIM (PORTFOLIO LEVEL)

- “All HYASIL™ formulations are designed to support scalp extracellular matrix integrity, optimize hydration dynamics, and improve the structural environment required for healthy hair function.”
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FORMULATION AND APPLICATION RECIPE

All formulas are expressed in INCI format with % w/w ranges, designed for scalability (lab → pilot → production).

I've standardized:

- HYASIL™ complex inclusion (optimized per application)
 - pH targets
 - Functional excipient logic (solvent, preservative, rheology)
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1. HYASIL™ DENSIFY — Anti-Hair Loss Serum

INCI Formula (% w/w)

- Aqua (Water) — q.s. to 100
- Propanediol — 3.00–5.00
- Glycerin — 2.00–4.00
- Niacinamide — 2.00–3.00
- Caffeine — 0.30–0.80
- Acetyl Tetrapeptide-3 — 0.005–0.02
- Copper Tripeptide-1 — 0.005–0.02
- Sodium Hyaluronate — 0.10–0.20
- Sodium Hyaluronate Crosspolymer — 0.10–0.30
- Methylsilanetriol — 0.20–0.50 (*HYASIL™ core*)
- Panthenol — 0.50–1.00
- PEG-40 Hydrogenated Castor Oil — 0.30–0.80
- Phenoxyethanol — 0.80–1.00
- Ethylhexylglycerin — 0.30–0.50

- Disodium EDTA — 0.05–0.10

pH: 5.2–5.8

2. HYASIL™ REPAIR — Post-Procedure Ampoule

INCI Formula (% w/w)

- Aqua — q.s.
- Sodium Chloride — 0.50–0.90 (isotonicity)
- Panthenol — 1.00–2.00
- Ectoin — 0.30–0.80
- Trehalose — 0.50–1.00
- Sodium DNA (PDRN) — 0.10–0.30
- Madecassoside — 0.05–0.10
- Sodium Hyaluronate — 0.15–0.30
- Sodium Hyaluronate Crosspolymer — 0.10–0.25
- Methylsilanetriol — 0.20–0.40
- Allantoin — 0.20–0.30
- 1,2-Hexanediol — 1.00–2.00
- Phenoxyethanol — 0.80–1.00

pH: 5.5–6.2

Note: Sterile filtration recommended (0.22 µm)

3. HYASIL™ HYDRA — Dry Scalp Serum / Mist

INCI Formula (% w/w)

- Aqua — q.s.
- Glycerin — 3.00–5.00
- Propanediol — 3.00–5.00
- Betaine — 1.00–2.00
- Urea — 0.50–1.50
- Aloe Barbadensis Leaf Juice — 5.00–10.00
- Sodium Hyaluronate — 0.10–0.25

- Sodium Hyaluronate Crosspolymer — 0.10–0.20
- Methylsilanetriol — 0.20–0.40
- Panthenol — 0.50–1.00
- Sodium PCA — 0.50–1.00
- Phenoxyethanol — 0.80–1.00
- Ethylhexylglycerin — 0.30–0.50

pH: 5.0–5.5

4. HYASIL™ BALANCE — Oily Scalp Tonic

INCI Formula (% w/w)

- Aqua — q.s.
- Alcohol Denat. — 5.00–10.00 (*optional, for sebum control*)
- Niacinamide — 2.00–4.00
- Zinc PCA — 0.30–1.00
- Salicylic Acid — 0.20–0.50
- Camellia Sinensis Leaf Extract — 0.50–1.50
- Sodium Hyaluronate — 0.10–0.20
- Sodium Hyaluronate Crosspolymer — 0.10–0.20
- Methylsilanetriol — 0.20–0.40
- Propanediol — 3.00–5.00
- PEG-40 Hydrogenated Castor Oil — 0.50–1.00
- Phenoxyethanol — 0.80–1.00

pH: 4.8–5.3

5. HYASIL™ AGE-DEFENSE — Scalp Anti-Aging Serum

INCI Formula (% w/w)

- Aqua — q.s.
- Glycerin — 2.00–4.00
- Propanediol — 3.00–5.00
- Acetyl Hexapeptide-8 — 0.01–0.05

- Palmitoyl Tripeptide-1 — 0.01–0.03
- Ubiquinone (CoQ10) — 0.05–0.10
- Resveratrol — 0.05–0.20
- Sodium Hyaluronate — 0.15–0.30
- Sodium Hyaluronate Crosspolymer — 0.15–0.30
- Methylsilanetriol — 0.30–0.60
- Panthenol — 0.50–1.00
- Tocopherol — 0.20–0.50
- Phenoxyethanol — 0.80–1.00

pH: 5.2–5.8

6. HYASIL™ VOLUME — Root Thickening Spray

INCI Formula (% w/w)

- Aqua — q.s.
- Polyquaternium-11 — 0.50–1.50
- Hydrolyzed Wheat Protein — 0.50–1.50
- Panthenol — 0.50–1.00
- VP/VA Copolymer — 1.00–3.00
- Sodium Hyaluronate — 0.10–0.20
- Sodium Hyaluronate Crosspolymer — 0.10–0.20
- Methylsilanetriol — 0.20–0.40
- PEG-40 Hydrogenated Castor Oil — 0.50–1.00
- Phenoxyethanol — 0.80–1.00

pH: 5.0–5.5

7. HYASIL™ CALM — Sensitive Scalp Serum

INCI Formula (% w/w)

- Aqua — q.s.
- Glycerin — 2.00–4.00
- Panthenol — 1.00–2.00

- Allantoin — 0.20–0.50
- Bisabolol — 0.10–0.30
- Avena Sativa Kernel Extract — 0.50–1.50
- Ceramide NP — 0.05–0.20
- Sodium Hyaluronate — 0.10–0.25
- Sodium Hyaluronate Crosspolymer — 0.10–0.20
- Methylsilanetriol — 0.20–0.40
- Phenoxyethanol — 0.80–1.00

pH: 5.2–5.8

8. HYASIL™ BOOST — Delivery Enhancer Serum

INCI Formula (% w/w)

- Aqua — q.s.
- Propanediol — 4.00–6.00
- Glycerin — 2.00–3.00
- Dimethyl Isosorbide — 1.00–3.00 (*penetration enhancer*)
- Niacinamide — 2.00–3.00
- Peptide Complex (e.g., Biotinoyl Tripeptide-1) — 0.01–0.05
- Sodium Hyaluronate — 0.15–0.30
- Sodium Hyaluronate Crosspolymer — 0.15–0.30
- Methylsilanetriol — 0.30–0.60
- Panthenol — 0.50–1.00
- Phenoxyethanol — 0.80–1.00

pH: 5.0–5.5

FORMULATION NOTES (IMPORTANT)

HYASIL™ Handling

- Pre-disperse Sodium Hyaluronate Crosspolymer to avoid clumping
- Add Methylsilanetriol in cool-down phase (<40°C)

Stability

- Avoid high electrolytes (can collapse HA network)
- Protect peptides from high temperature

✓ Compatibility

- Works well with:
 - Peptides
 - PDRN
 - Humectants
 - Watch with:
 - High alcohol (>15%)
 - Strong acids (pH <4.5)
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Strategic Outcome

You now have:

- 8 SKU-ready formulations
- All unified under HYASIL™ technology
- Each targeting a distinct scalp condition