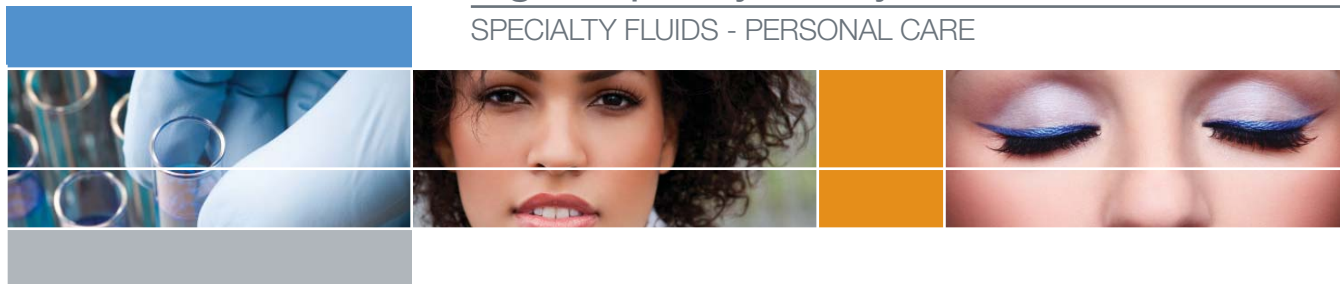


SilShine* 151 gloss additive high RI phenyl siloxysilicate resin

SPECIALTY FLUIDS - PERSONAL CARE



SilShine 151 gloss additive is a silicone film former that delivers visually perceivable high shine to lips and hair. SilShine 151 gloss additive offers high refractive index, non-volatility, non-migration and organic compatibility. The silicone resin structure gives excellent film forming properties. The phenyl functionality provides compatibility with organic emollients without sacrificing compatibility with silicones.

Key Features and Typical Benefits

- high gloss and shine
- non-volatile, non-migrating
- long lasting, durable
- SPF enhancement
- good skin adhesion with pleasant aesthetics
- anti-whitening (antiperspirants and physical UV filters)

Potential Applications

- color cosmetics (lipsticks, glosses, lip balm)
- hair styling products
- sun care
- antiperspirant

INCI Name: Phenylpropyldimethylsiloxysilicate

Typical Physical Properties

Property	Value
Viscosity at 25°C	280-600 mm ² /sec
Density at 25°C	1.07 g.cm ⁻³
Weight loss, %	1 max
Appearance	Clear liquid
Refractive Index, 25/25°C	1.51

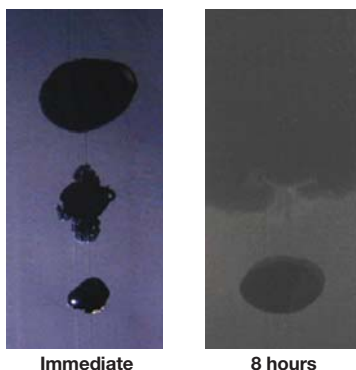
SilShine 151 gloss additive

Non-Migration

Dimethicone 350 cSt

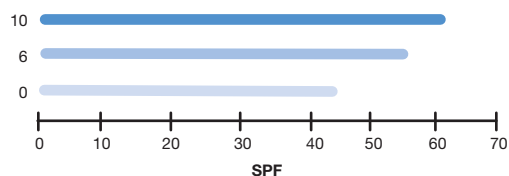
Phenyl Trimethicone

SilShine 151 gloss additive



After 8 hours, SilShine 151 gloss additive has migrated less than phenyl trimethicone and dimethicone.

SPF Boosting Effects: o/w Emulsions



Anti-Whitening Effects of Silshine 151 Gloss Additive Sun Screen with Physical UV Filters

Oil Phase	1	control
SF1540	2.5	2.5
SF1202	19	23
Velvetisil 125 copolymer	10	10
Sorbitan Oleate	0.5	0.5
Micronized TiO2 (Hydrophobic)	5	5
Silshine 151 gloss additive	4	0
Water Phase		
Preservative	0.1	0.1
1% NaCl solution	56.9	56.9
Butylene glycol	2	2
Stability (2 month, ambient)	Stable	Stable
50°C stability (one month)	Stable	Stable
Whitening (visual assessment)	less	more

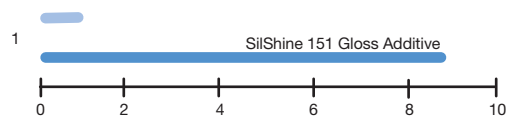
High Gloss in Color Cosmetics–Sensory Panel Results

Attribute Tested	Formulation Preferred	
	Phenyl Trimethicone	SilShine 151 gloss additive
Durability of Gloss	2	8
Migration	2	8

A 10 person sensory panel evaluated lip gloss containing SilShine 151 gloss additive or phenyl trimethicone for durability of gloss and migration properties.

Eight out of ten persons chose lip gloss containing SilShine 151 gloss additive for better durability of gloss and non-migration from lips.

High Shine in Hair–Sensory Panel Results



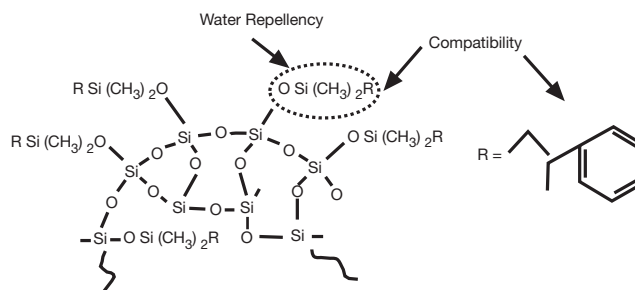
10 panelists assessed tresses treated with 10% SilShine 151 gloss additive or phenyl trimethicone in isopropanol for shine.

Nine out of ten persons found that tresses treated with SilShine 151 gloss additive are glossier.

Comparison of SilShine 151 Gloss Additive and Phenyl Trimethicone

SilShine 151 gloss additive	Phenyl Trimethicone
Phenyl siloxysilicate resin	Phenyl-modified siloxane fluid
Refractive index: 1.51	Refractive index: 1.46
Film former	Fluid
Non-volatile	Some volatility
Non-tacky, non-oily skin feel	Non-tacky, non-oily light skin feel
Durable ultra high shine	High shine
Non-migrating properties	Migration possible
Anti-whitening effect in AP and sun care products	Anti-whitening effect in AP and sun care products
Excellent silicone and organic compatibility	Excellent silicone and organic compatibility

Chemical Structure



*SilShine is a trademark of Momentive Performance Materials Inc.

VELVESIL * 125 Silicone Copolymer Network and SilShine 151 gloss additive

Patent Status

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