

DOWSIL™ ES-5700 Formulation Aid

High dispersing capabilities for fine powders in various carriers

Consumers understand that protecting their skin from the damaging effects of the sun is crucial to prevent sunburn and keep their skin looking flawless. They recognize the importance of a higher SPF and they want it delivered with other performance benefits they enjoy.

The unique structure of DOWSIL™ ES-5700 allows the sunscreen to be evenly dispersed on the skin with reduced white residue making all the difference. For use in a wide range of personal care applications such as color cosmetics, skin care and sun care, this high performing dispersant is an ideal choice for formulators.

| INCI name | Cetyl Diglyceryl Tris(trimethylsiloxy)silylethyl Dimethicone |
|----------------|---|
| Appearance | Colorless to light brown, transparent to translucent liquid at 25°C |
| Viscosity | 700-1200 mm ² /s |
| HLB | 2.5 (calculated value ¹) |
| Active Content | 100% |
| D4/D5/D6 Level | <0.1% |

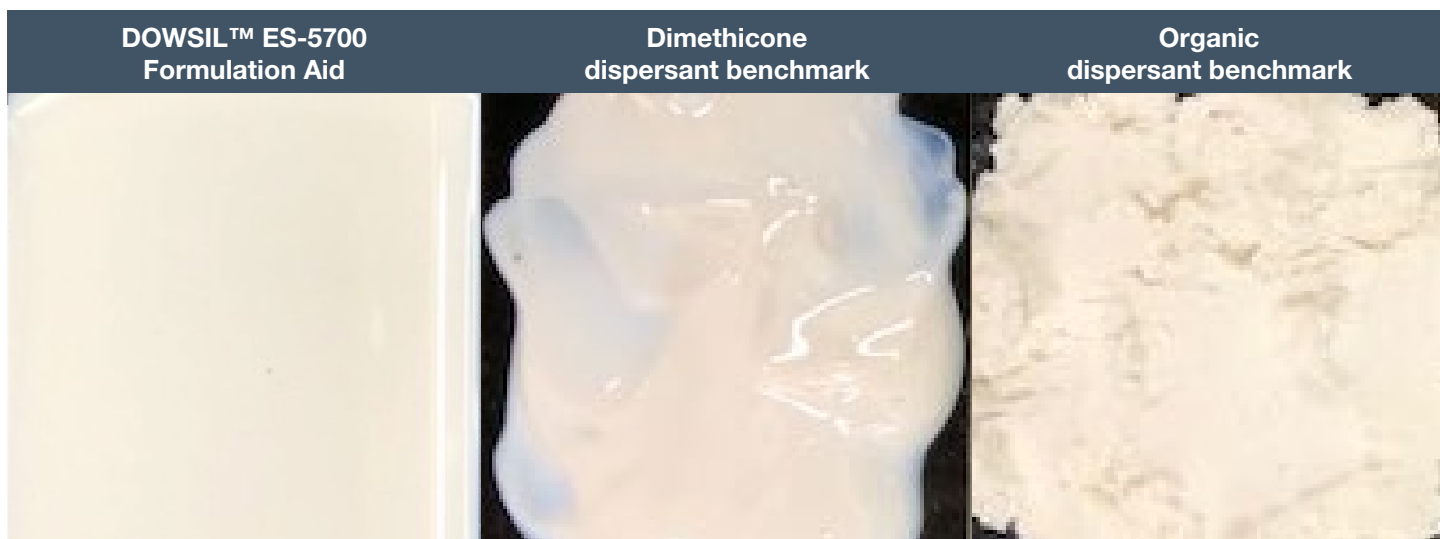
*These are typical properties, not to be construed as specifications
 1. HLB calculated with IOB (Inorganic-Organic Balance) value

Benefits

- High dispersing capability for fine particles
- Low viscosity stable dispersion
- Broad carrier options for formulation flexibility
- Good optical performance
- High SPF & PA value
- Optimal UV absorption & high transparency
- Reduced white residue
- Improved color intensity
- Even color tone
- Non-GMO and does not contain ingredients of animal origin.



High dispersing capability for fine particles



DOWSIL™ ES-5700 Formulation Aid can make lower viscosity, uniform dispersion when compared with other commercial products.

Formulation inspiration

Glow My Way SPF Primer (CPF 4564)

Anhydrous skin primer for dark skin tones with zinc oxide UV filters and SPF 34 (in vivo)

| Phase | Trade name / Supplier | INCI name | % Wt. |
|-------|--|--|-------|
| A | DOWSIL™ EL-TIPS Silicone Elastomer Blend / Dow | C13-15 Alkane (and) Dimethicone / Vinyl Dimethicone Crosspolymer | 31.00 |
| | ZNO-660SS-11S5 / Kobo | Zinc Oxide (and) Triethoxycaprylylsilane | 18.07 |
| B | DIM2F50TRR / Kobo | Dimethicone (and) CI 77491 (and) PEG-9 Polydimethylsiloxethyl Dimethicone (and) Hydrogen Dimethicone (and) Polycylerl-4 Isostearate (and) Cetyl PEG/PPG-10/1 Dimethicone (and) Hexyl Laurate | 0.87 |
| | ACT96-B-77499 / Miyoshi | CI 77499 (and) Disodium Stearoyl Glutamate (and) Aluminum Dimyristate (and) Triethoxycaprylylsilane | 0.40 |
| | SunSpheres™ BIO SPF Booster / Dow | Microcrystalline Cellulose | 1.50 |
| | DOWSIL™ ES-5700 Formulation Aid / Dow | Cetyl Diglyceryl Tris(trimethylsiloxy)silylethyl Dimethicone | 1.50 |
| | Isododecane / Making Cosmetics | Isododecane | 16.66 |
| C | Isododecane / Making Cosmetics | Isododecane | 30.00 |

Processing instructions:

1. Mix Phase B ingredients.
2. Add Phase B to Phase A and mix.
3. Add Phase C as desired to adjust texture of formula.



Learn more

For more information about DOWSIL™ ES-5700 Formulation Aid, such as sample formulations, please contact your customer service representative or visit www.dow.com/virtual/beautyexperience.



Images: dow_62345821551, dow_73301108556, dow_73319859768

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