Floramac 10 Increased Hair Shine Better Than Silicones in a Leave-In Hair Serum

**Objective:**
To evaluate Floramac 10 in a leave-in hair serum, compared to commonly used silicones, for its potential to improve hair shine (i.e., gloss).

**Method:**
Naturally straight, brown hair tresses were treated with leave-in hair serums containing Floramac 10, phenyl trimethicone, or cyclopentasiloxane. Hair gloss measurements were taken before and after hair serum treatment, with heat (i.e., flat iron) and without heat.

**Results:**
The leave-in hair serum containing Floramac 10 increased hair shine up to 2 times more than silicones without the use of heat, and up to 1.7 times more than silicones with the use of heat.

**Hair Serum (%wt/wt):** Test Emollient (q.s.), Glyceryl Tribehenate/Isostearate/Eicosadioate (10.0%), Polyglycerol-3 Beeswax (2.7%), and Phenoxyethanol (0.6%).

### Percent Change in Hair Shine (relative to untreated hair)

**No Heat:**
- A - Floramac 10
- B - cyclopentasiloxane
- C - phenyl trimethicone

**With Heat:**
- A - Floramac 10
- B - cyclopentasiloxane
- C - phenyl trimethicone

The ex vivo study of Floratech® test formulation (CTL_16-067) was conducted on naturally straight, brown, eight inch long hair tresses (DeMeo Brothers Inc., Passaic, NJ) that were washed with sodium lauryl sulfate prior to use in the study (n=5 tresses per test article), then air-dried overnight. Treatment consisted of dampening hair, one application of 0.5 ml of the conditioner test article per 1.5 g of hair, combing the test article through the hair using 10 comb strokes, air-drying overnight, and 5 passes with a flat iron at 450°F (232°C). Hair shine measurements were made using a Glossymeter GL 200 (Courage + Khazaka, Köln, Germany) on untreated hair / no heat, untreated hair / with heat, treated hair / no heat, and treated hair / with heat. The study was blinded, and carried out under controlled temperature and humidity conditions. The inclusion of Floramac 10 resulted in statistically significant (p<0.05) increases in shine compared to each respective silicone-containing test article with heat, compared to the cyclopentasiloxane-containing test article without heat, and compared to baseline (with and without heat). (Clinical Study 16-067 - Phase II report available upon request.)