



HEAT PROTECTION WITH FLORAMAC® 10 IN A LEAVE-IN HAIR SERUM

CS 17-095



Floramac 10 Provided Similar Heat Protection as Silicones

Objective:

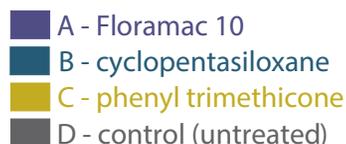
To evaluate Floramac 10 for its potential to prevent heat-damaged hair from breakage (*i.e.* heat protection) when used in a leave-in hair serum.

Method:

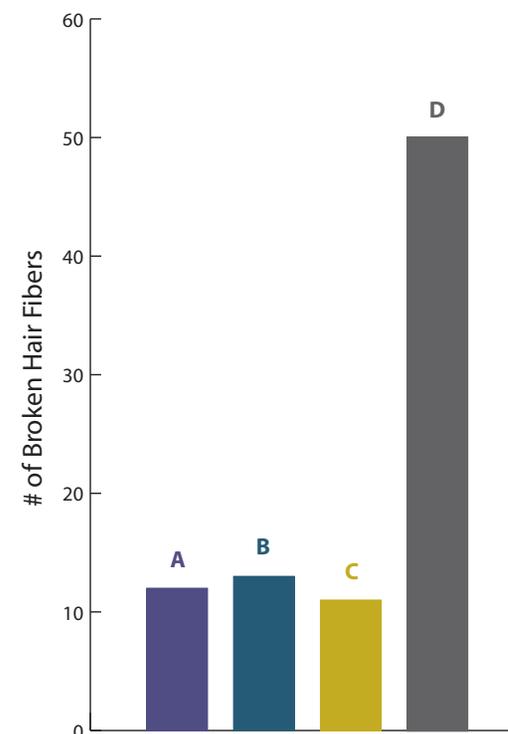
Leave-in hair serums containing either Floramac 10, cyclopentasiloxane, or phenyl trimethicone were applied to hair tresses, followed by heat exposure. Breakage was determined after 1000 controlled comb strokes.

Results:

The leave-in hair serum containing Floramac 10 **performed similarly to the silicones**, cyclopentasiloxane and phenyl trimethicone, and **76% better** than untreated hair.



Broken Hair Fibers



A = vehicle hair serum + 86.7% Floramac 10 / B = vehicle hair serum + 86.7% cyclopentasiloxane / C = vehicle hair serum + 86.7% phenyl trimethicone

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

Floratech Ingredient: Floramac 10

The *ex vivo* study of Floratech® test formulation (CTL_16-067) was conducted (n=8 tresses per test article) on naturally curly, brown, six inch long hair tresses (DeMeo Brothers Inc.) that were double-bleached to cause damage. Tresses were washed with sodium lauryl sulfate prior to use in the study. Treatment consisted of damp hair tresses being treated with one application of the leave-in hair serum test article (0.2 ml per 1.5 g of hair), blow-drying [at approximately 131° ± 50° F (55° ± 10° C)], repeated flat ironing at 450°F (232°C, 100 passes), and repeated combing (1000 controlled comb strokes). Broken hair fibers were collected and visually counted after repeated combing. The study was blinded, and carried out under controlled temperature and humidity conditions. All test articles resulted in statistically significant ($p < 0.05$) fewer broken fibers compared to the control (untreated). (Clinical Study 16-067 - Phase IV report available upon request.)