



HEAT PROTECTION USING FLORAMAC® 10 AS A SILICONE ALTERNATIVE IN A LEAVE-IN HAIR CREAM

CS 19-133



Floramac 10 Provided Heat Protection in a Leave-In Hair Cream



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 cream.

Method:

Leave-in hair creams containing either 5% Floramac 10 or 5% phenyl trimethicone were applied to hair tresses, followed by heat exposure. Breakage was determined after 1000 controlled comb strokes.

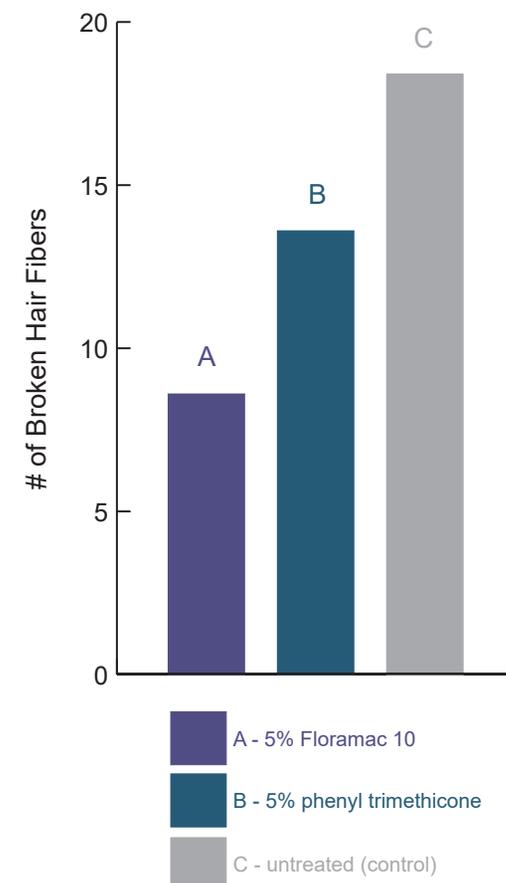
Results:

The leave-in hair cream containing Floramac 10 **performed 37% better** than phenyl trimethicone, and **53% better** than untreated hair.

A = vehicle hair cream + 5% Floramac 10 / B = vehicle hair cream + 5% phenyl trimethicone

Vehicle Hair Cream (%wt/wt): Water (q.s.), Hydrogenated Sunflower Seed Oil Polyglyceryl-3 Esters (and) Hydrogenated Sunflower Seed Oil Glyceryl Esters (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate (3.00%), Citric Acid (and) Water (1.20%), Cyclopentasiloxane (1.00%), Phenoxyethanol (and) Ethylhexylglycerin (0.90%), Hydrolyzed Soy Protein (0.65%), Carbomer (0.25%), Aminomethyl Propanol (0.24%), Fragrance (0.15%), and Disodium EDTA (0.10%).

Broken Hair Fibers



Floratech Ingredient: Floramac 10

The *ex vivo* study of Floratech® test formulation (CTL_19-077) was conducted (n=8 tresses per test article) on naturally curly, dark brown, six inch long tresses (International Hair Importers & Products). 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 cream test article (1 ml per 1.5 g of hair), blow-drying, 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. The test article with Floramac 10 resulted in statistically significant ($p < 0.05$) fewer broken fibers compared to the control (untreated), and directionally significantly ($p < 0.10$) fewer broken fibers compared to the test article with phenyl trimethicone. (Clinical Study 19-077 - Phase III report available upon request.)