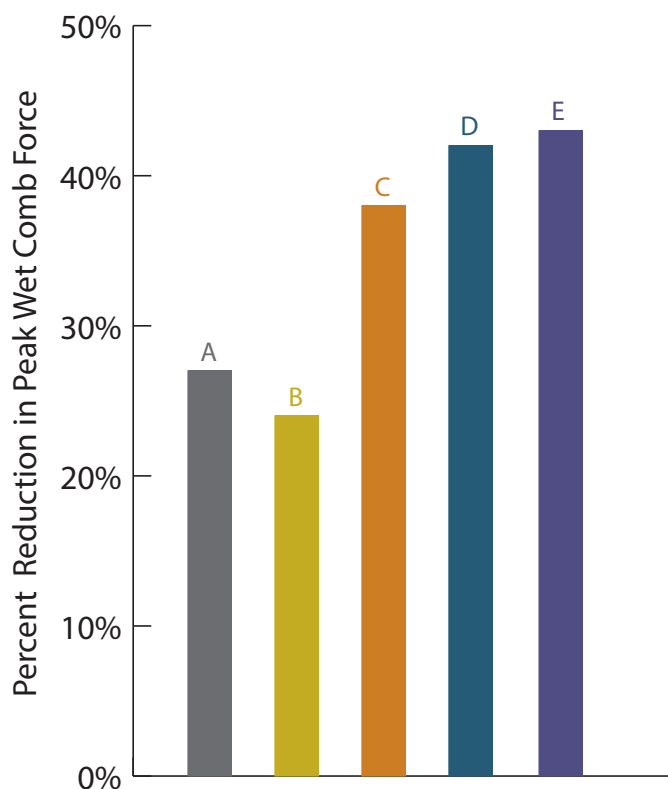




Floraesters K-100 Jojoba Reduced Wet Comb Force as well as Quaternium Compounds in a Rinse-Out Conditioner

Reduction in Wet Comb Force



Objective:

To evaluate Floraesters K-100 Jojoba in a rinse-out hair conditioner, compared to quaternium compounds, for its potential to improve hair conditioning as measured by wet comb force.

Method:

Conditioners with 1% Floraesters K-100 Jojoba, 1% cetrimonium chloride, 1% hydroxypropyltrimonium hydrolyzed wheat protein (Wheat Q), or 1% quaternium-80 were applied to the hair tresses. Wet comb force measurements were taken at baseline and post-conditioner treatment.



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Results:

The rinse-out conditioner containing 1% Floraesters K-100 Jojoba **reduced wet comb force 59% more than the vehicle conditioner, and as effectively as quaternium compounds.**

- A - vehicle
- B - vehicle + 1% Wheat Q
- C - vehicle + 1% quaternium-80
- D - vehicle + 1% cetrimonium chloride
- E - vehicle + 1% Floraesters K-100 Jojoba

Vehicle Conditioner (%wt/wt): Water (q.s.), Glyceryl Stearate (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate (4.0%), Cetyl Alcohol (3.0%), Propanediol (1.0%), Polyglyceryl-2 Stearate (1.0%), Ethylhexyl Methoxycinnamate (and) BHT (1.0%), Moringa Oil/Hydrogenated Moringa Oil Esters (1.0%), Macadamia Integriifolia Seed Oil (1.0%), Ethyl Macadamiate (1.0%), Phenoxyethanol (and) Decylene Glycol (and) Propylene Glycol (0.8%), Fragrance (0.5%), Tocopheryl Acetate (0.5%), Niacinamide (0.3%) Hydroxyethylcellulose (0.1%), Disodium EDTA (0.1%), Pyridoxine Hydrochloride (0.1%), and Citric Acid (0.1%).

Floratech Ingredient: Floraesters K-100 Jojoba

The *ex vivo* study of Floratech® test formulation (CTL_15-060) was conducted on naturally curly, dark brown, six inch long hair tresses (DeMeo Brothers Inc.) that were damaged via double-bleaching and then washed with a 10% sodium lauryl sulfate solution prior to use in the study (n=8 tresses per test article). Treatment consisted of a 30 second rinse, one application of 1 ml of the conditioner test article per 1.5 g of hair, a 30 second rub, and another 30 second rinse. Peak comb force (gram-force) measurements were made using a Test Resources Q Series (100Q) Universal Testing Machine (TestResources, Inc.). This study was double-blind and randomized. The inclusion of Floraesters K-100 Jojoba or cetrimonium chloride resulted in statistically significant ($p < 0.05$) reductions in wet comb force compared to the vehicle test article, compared to the test article containing 1% Wheat Q, and compared to baseline. Wheat Q (INCI: hydroxypropyltrimonium hydrolyzed wheat protein) was supplied by Brenntag Specialties, Inc. (Clinical Study 15-060 - Phase V report available upon request.)