



Florasolvs Brilliantly Clear Hair Gel

Products highlighted: Florasolvs® PEG-150 Hydrogenated Jojoba and Floraesters® K-20W Jojoba

A brilliant, clear hair gel that provides hold without sacrificing flexibility. The Florasolvs PEG-150 Hydrogenated Jojoba acts as a plasticizer to keep hair flexible while holding it in place. This clear gel uses Floraesters K-20W Jojoba for two reasons: to impart shine, conditioning, and a degree of water resistance; and to act as the neutralizer for the polymer system, thus forming a clear gel without the need for synthetic amines or metal hydroxides.

| Phase | Trade/Common Name | INCI Name | Manufacturer | %wt./wt. |
|--------------|---|---|--------------------------|---------------|
| A. | Deionized Water | Water | ----- | q.s. |
| | Carbopol® Ultrez 21 Polymer | Acrylates/C10-30 Alkyl Acrylate Crosspolymer | Lubrizol Corporation* | 0.50 |
| B. | Deionized Water | Water | ----- | 16.60 |
| | Florasolvs PEG-150 Hydrogenated Jojoba | Jojoba Oil PEG-150 Esters | Floritech | 1.00 |
| C. | Floraesters K-20W Jojoba | Hydrolyzed Jojoba Esters (and) Water (Aqua) | Floritech | 4.00 |
| | Solubilisant LRI | PPG-26-Buteth-26 (and) PEG-40 Hydrogenated Castor Oil | LCW/Sensient | 3.00 |
| | SDA 40-2 (200 proof) | Alcohol Denat. | Remet Corporation | 6.00 |
| D. | PVP/VA W-735 | VP/VA Copolymer | Int'l Specialty Products | 5.00 |
| | Deionized Water | Water | ----- | 5.00 |
| E. | Color (optional) | ----- | ----- | q.s. |
| | Preservative | ----- | ----- | q.s. |
| TOTAL | | | | 100.00 |

Mixing Procedure

1. Disperse the Carbopol Ultrez 21 Polymer into the deionized water at room temperature. Use a medium, sifting action with propeller agitation to disperse this Carbopol Ultrez 21 Polymer. Allow sufficient time for complete hydration of the Carbopol Ultrez 21 Polymer.
2. Heat the deionized water of Phase B to 65°C and add the Florasolvs PEG-150 Hydrogenated Jojoba with stirring until dissolved.
3. At room temperature, dissolve Floraesters K-20W Jojoba in the SDA 40-2 (200 proof). Once it is dissolved, add the Solubilisant LRI to this mixture.
4. Dilute the PVP/VA W-735 with the deionized water listed in Phase D at room temperature.
5. Neutralize Phase A with Phase C. With complete mixing, pour Phase C into Phase A at a very slow pace (*do not pour Phase C into Phase A too quickly or the gel may form white agglomerates*). Allow time for complete mixing of these two phases, which should result in a clear gel.
6. Add Phase B to Phase AC with sweep action mixing at room temperature.
7. Add Phase D to Phase ABC with sweep action mixing at room temperature.
8. If color is required, slowly add Phase E to Phase ABCD with sweep action mixing at room temperature.

Typical Properties: pH: 5.1 - 5.5
Viscosity: ≥ 120,000 cP

* Supplied by Essential Ingredients

Note: The information herein is based on our research and the research of others and is believed to be accurate. No guarantee of accuracy is made and the products are sold without warranty, expressed or implied and upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes. Likewise, statements concerning the possible use of these products are not intended as recommendations to use these products in infringement of any patent or in the treatment, prevention, or cure of any medical condition. (Cleared for Public Disclosure).

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