

CARBOPOL POLYMER (ULTREZ 20)

INCI: Acrylates/C10-30 Alkyl Acrylate Crosspolymer

Carbopol Polymer has been designed to be an excellent self-wetting, rheology modifier and suspending agent as a thickener and stabilizer in cosmetic manufacturing. Its unique structure allows it to rapidly expand when added to liquids, and provides moderate-to-high viscosity in skin-care products. Carbopol polymer performs effectively across a broad pH range, making it a versatile ingredient for many applications.

It comes as a fluffy, fine white powder. When used in shampoo and body wash formulations, Carbopol Polymer helps to suspend and stabilize beads, microcapsules and exfoliants for excellent product stability and visual appeal. It exhibits good clarity in gel formulations, along with providing a smooth, aesthetically pleasing quality. In creams and lotions, it helps to create emulsions with a rich and creamy texture. It can be used in systems where sparkling clarity is required, and it is ideally suited for use in formulations containing higher levels of oils, botanical ingredients, or humectants

Benefits In Formulations

- Gives a smooth flow
- Clear surfactant formulations at pH levels of 4 to 6
- Ideal for use with food-grade preservatives such as Sorbic Acid
- High suspension and stabilization of insoluble ingredients, including silicone, oils, and emollients
- pH flexibility with “Back-Acid” formulating technique
- Broad surfactant compatibility
- Synergistic thickening with salt
- Enhances pearlescent appearance
- Stabilizes high oil-loaded body wash emulsions
- Compatible with low levels of cationic conditioning ingredients

Applications

It provides excellent performance in a wide range of products, including:

- Body washes, shampoos and cleansers
- Pearlescent body washes and shampoos
- Body and facial scrubs with exfoliating beads or suspended microcapsules
- Facial scrubs with
- Anti-acne facial cleansers with salicylic acid
- Conditioning shampoos

Guidelines For Use:

No more than 0.5% to 1.5% of this product need be added to any

formulation. **How to use:**

- Sprinkle polymer on surface of cold water and allow to self-wet (vigorous agitation produces foam).
- Gently begin agitation.
- Heat the solution.
- Carbopol polymer can be pre- or post-neutralized, depending on the application.
- At a rate of 5% of the formula's total weight, add a 25% solution of sodium hydroxide (i.e., 25 g sodium hydroxide to 100 g distilled water; 5% of that solution will then be added to the gel solution)
- Keep agitation to a minimum (to avoid air entrapment) while adding remaining ingredients to the formulation.
- Add typical full-spectrum cosmetic-grade preservatives.

This product should be stored in a cool, dry location, away from moisture. It is recommended that the product be re-tested after two years for moisture content. Carbopol polymers are stable for years when protected from moisture.

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As with any manufacturing process, New Directions Aromatics strongly recommends small lab scale testing for evaluation purposes prior to full commercial manufacturing.