EASTMAN

Eastman AQ™ water-dispersible film formers

Skin care | Sun care | Hairstyling | Color cosmetics

Enhance your product's film-forming ability and adhesion to skin.

Eastman AQ™ polymers serve as film formers in skin care, hairstyling, color cosmetics and other personal care applications. These polymers offer unique properties that can differentiate product lines and enhance the feel and performance of various product formulations.

These anionic polyesters are used in cosmetics and personal care products as film formers and to aid the dispersion of hydrophobic ingredients in water-based formulations. AQ polymers are characterized by their ability to disperse in water without the need to be neutralized. They are available in different grades with unique properties and applications.

Unique applications

Eastman AQ 38S is primarily used in sun and skin care applications like creams, lotions and sprays. It has a lower glass transition temperature(T_g) close to body temperature that offers a softer film and smoother, nongreasy feel.

Eastman AQ 48 ultra polymer is a hairstyling fixative for hair sprays, mousses and gels. It is compatible with higher levels of alcohol and has good washout during shampooing. The dry time and moisture resistance of Eastman AQ polymer films are advantageous in these applications.

Eastman AQ 55S has excellent film stiffness and is preferred for water-containing makeup and mascaras. It improves water and smudge resistance without being oily.

Eastman AQ 38S and 55S are particularly ideal for creams, lotions and liquid makeup to provide a nongreasy feel.

Product features

- **Film-forming ability:** These polymers have excellent film-forming properties, allowing them to create durable and protective films on various surfaces.
- **Adhesion:** These polymers exhibit good adhesion to skin and hair, making them suitable for applications like hairstyling products and skin care formulations.
- **Compatibility:** Eastman AQ polymers are anionic polymers that are compatible with a wide range of additives and ingredients commonly used in cosmetics and personal care products.
- **Water dispersibility:** Eastman AQ polymers can disperse in water without the need for organic solvents, surfactants or amines. This makes them highly convenient to use in water-based formulations with no need for pH adjustment and no changes in viscosity.
- **Hydrophobic material dispersion:** Eastman AQ polymers aid in the dispersion of hydrophobic materials in water-based systems, enabling the formulation of stable and homogeneous products.
- **Versatility:** These polymers find applications in various cosmetic and personal care products, including hair sprays, gels, color cosmetics, skin care products and more.
- **INCI name:** Polyester-5

Proven performance[a]

Property	Eastman AQ 38S	Eastman AQ 48 ultra	Eastman AQ 55S
Percent solids	100	100	100
Physical form	Pellets	Pellets	Pellets
Molecular weight, M_n	10,000	10,000	10,000
Hydroxyl number	<10	<10	<10
Acid number	<2	<2	<2
T_g, °C (dry polymer)	35–38	45–48	51–55
Inherent viscosity, dL/g	0.32–0.40	0.26–0.32	0.29–0.37
Color	Clear, light amber	Clear, light amber	Clear, light amber
Ionic type	Anionic	Anionic	Anionic
pH	6.0–7.0	5.7–6.0	5.9–6.5
Clarity	Hazy	Clear	Slightly hazy
Turbidity of 30% AQ dispersion, NTU[b]	200–400	5–20	20–40
Maximum alcohol tolerance:[c] 5% AQ dispersion	40%–45%	50%–55%	30%–35%
Maximum alcohol tolerance:[c] 10% AQ dispersion	30%–35%	40%–45%	25%–30%

[a] These properties are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.
[b] Turbidity varies with dispersion temperature and rate of mixing.
[c] Slight flocculation may occur, which is easily redispersed.

Your partner in water-dispersible film formers

When you formulate with AQ polymers, you give your consumers what they want — enhanced feel and performance for skin care, hairstyling and color cosmetics.

Get the expertise and collaboration you need. Contact an Eastman representative for more information.

EASTMAN

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