



QUAKER COLOR

A Step Ahead...

Welcome to Quaker Color – Specialty Chemicals

As a Specialty Chemical Company **Quaker Color** offers a variety of coatings products to the Global Market. We are leaders in automotive coatings in the USA, and have a strong presence in other North American countries, Latin America, and Europe. More recently we have expanded our business into Asia.

At **Quaker Color**, we are passionate about the chemical business. Our polyurethane dispersion technology continues to be on the cutting edge of coatings performance, allowing our technology to add value to your product where critical properties are needed to improve and enhance resistance, softness and toughness, feel, surface look, and color.

Our aim is to improve the quality of coatings for all end use applications whether it is for Automotive, Electronics, Industrial coatings, Metal coatings, Textiles, Paper, Construction, Rubber, Plastics, Shoe Finishes, Synthetic Leather Finishes or Wood Coatings.

At **Quaker Color** we are committed to innovating and developing environmentally friendly water-based products with superior performance while providing an economical cost advantage.

The technologies and products we offer for coating various substrates include:

Poseidon Urethane: Water-borne Polyurethane dispersions- High performance water-borne products that impart excellent adhesion to various substrates, with excellent film toughness, flexibility, non-yellowing resistance, water resistance, abrasion resistance, and chemical resistance. These products can be crosslinked to further enhance performance properties.

Poseidon Linker: Crosslinkers- Compatible with most acrylic and polyurethane binder systems; it significantly improves water and solvent resistance, toughness, abrasion resistance, block resistance, flexibility and long term durability of the coating inclusive of UV outdoor exposures.

Q-Color: Pigments- 0 VOC High quality concentrated pigment dispersions offering consistent accuracy in color matching, excellent wet/dry rub resistance, heat resistance, UV resistance, hiding power, and all while not detracting from the coatings' water resistance.

Q-Feel: Touch and feel modifier- Unique feel additives for exclusive use in water-based coating systems. It imparts a very pleasant feel of a silky and waxy nature with nice mellow handle.

Q-Add: Additives used to enhance your coating system.

Wax- Improves the surface feel, water and abrasion resistance properties.

Thickener- Provides the ability to effectively control the rheology of the coating.

Flow agent- To be used as a leveling and wetting aid for water-borne coatings on difficult to wet or non-absorbing substrates.

Defoamer- Eliminates trapped air bubbles/foam in the coating.

Matting agent- Highly compatible resin free dullers/fillers derived from unique chemistries, used for high opacity coatings without overloading the surface causing harsh and coarse feel, increases opacity and reduces gloss.

Poseidon Top: Aqueous topcoats-

Acrylic/Polyurethane topcoats ranging from glossy to dull, imparts exceptional coverage with outstanding physical properties in terms of flexibility, abrasion resistance, wet rub, excellent cold crack resistance, good flexibility, good surface feel, good light-fastness, heat stability and excellent flow properties.

“Q-Color, Q-Upgrade, Poseidon Urethane, Q-Add, Poseidon Top, Q-Feel and Poseidon Linker” are Registered Brand Names and Trade Marks of Quaker Color.

Synthetic Leather Finishes- Aqueous Aliphatic Urethane Dispersion

| Product | % Total Solids | Sward Hardness | % Elongation | pH | Performance Attributes |
|--|----------------|----------------|--------------|----------|---|
| Poseidon Urethane DM-03-95 <i>Aliphatic urethane</i> | 33 ± 2 | | 620 | 8.0-8.5 | Inherently low gloss (0.7-1.0) velvety soft polymer with excellent chemical and UV resistance. Automotive interior coatings could be formulated without the addition of flattening or feel additives. High flexibility makes it suitable for thermoforming coatings. |
| Poseidon Urethane DM-1114 <i>Aliphatic urethane</i> | 33 ± 2 | | 950 | 8.0-8.5 | Unique semi dull aliphatic urethanes with exceptional physical properties in terms of flexibility and abrasion resistance, suitable for low gloss coatings requiring soft touch hand feel aesthetics. |
| Poseidon Urethane AB-91F <i>Aliphatic urethane</i> | 32 ± 2 | 12 | 650 | 7.5-8.5 | Very, tough, good hydrolytic stability and excellent UV resistance, medium hard, aliphatic lightfast polyurethane polymer with excellent abrasion and stain resistance. It can be crosslinked to further enhance performance properties. It is suitable for use in base coat and topcoat for all types of synthetic leather finishes. NMP Free. |
| Poseidon Urethane AB-70 <i>Aliphatic urethane</i> | 38±2 | 20 | 900 | 7.0-9.0 | Exhibits excellent water resistance, flexibility, block resistance, taber resistance, cold crack resistance, and extensibility on soft-stretchy substrates. Soft surface feel, good flow out, light and UV exposure resistance with good film formation properties. Suitable for use in topcoat finishes for high quality synthetic leathers. |
| Poseidon Urethane AB-30 <i>Aliphatic urethane</i> | 37 ± 2 | 25 | 700 | 8.0-10.0 | Tough, abrasion and UV resistance with good hydrolytic stability. An aliphatic lightfast polyurethane polymer with excellent adhesion that can be crosslinked with isocyanate or aziridine based crosslinker to further enhance water and stain resistance. It can be used as a primary binder to formulate tough and flexible topcoats with high melt points. It imparts excellent film toughness, smoothness, good flexibility, excellent yellowing resistance, excellent film clarity, good plating properties, very good wet rub properties and good hot ironing resistance. It offers a wide balance of properties making it suitable for all types of synthetic leather finishes. NMP Free version available. |
| Poseidon Urethane AB-20 <i>Aliphatic urethane</i> | 34 ± 2 | 14 | 800 | 8.5-10.0 | Best hydrolytic stability, excellent cold flexibility, elongation and soft feel. Used to improve the toughness and flexibility of base coat films without adversely affecting softness. It has good filling and coverage characteristics and can be used to produce embossable base coats and topcoats with exceptional room temperature and cold flexing properties. The physical properties can be further enhanced with the addition of crosslinker. NMP Free. |

Synthetic Leather Finishes- Aqueous Aliphatic Urethane Dispersion (continued...)

| Product | % Total Solids | Sward Hardness | % Elongation | pH | Performance Attributes |
|--|----------------|----------------|--------------|------------|---|
| Poseidon Urethane ST-844 <i>Aliphatic urethane</i> | 32 ± 2 | 10 | 1000 | 7.0-9.0 | Excellent hydrolytic stability, excellent flexibility and elongation with soft touch and low gloss. Inherently dull, solvent free , lightfast polyurethane resin with exceptional physical properties in terms of abrasion resistance, flexibility and water resistance. It can be used in base coat or topcoat formulations to produce low gloss coatings without the need for external dulling agents with soft touch and good surface handle. Performance can be enhanced by the addition of crosslinker. Topcoats prepared with Poseidon Urethane ST-844 exhibit excellent flow, surface feel properties and wet crock resistance. |
| Poseidon Urethane ST-944 <i>Aliphatic urethane</i> | 34 ± 2 | 12 | 750 | 8.0 - 10.0 | Good flexibility and hydrolytic stability. Soft touch with inherently low gloss. Unique co-solvent free highly flexible, soft touch resin designed to impart satin like feel and good covering with uniform look and appearance to the different synthetic substrates. |

Crosslinker

| Product | % Total Solids | Equivalent Weight | Viscosity | pH | Performance Attributes |
|--|----------------|-------------------|-----------|----------|--|
| Poseidon Linker XL-732N <i>Carbodi-amide</i> | 39 ± 2 | 445 | 20 | 9.0 - 11 | Unique crosslinker engineered to improve chemical resistance. Highly compatible with water based polyurethane and acrylic dispersions. The finish formulation crosslinked with Poseidon Linker XL-732N exhibits excellent pot life. |

Quaker Color manufactures all its products under carefully controlled conditions to meet rigid specifications. The values given in this publication are typical values intended as guidelines for the use of the products. They are not specifications. If you require the actual specifications currently in force on the specific products, contact your Quaker Color representative for the appropriate information