Diamond Vogel | INDUSTRIAL COATINGS

TECHNICAL DATA SHEET

Product Description: Waterborne Primer System

PRODUCT CODES: **Beige – QL-0516 | Gray – QL-0517 | White – QL-1515 | Yellow Oxide – QL-3530 Red Oxide – QL-5505 | Black – QL-9595**

DESCRIPTION: Quantum Waterborne Primers are specifically developed for original equipment manufacturers that desire water-based coatings with excellent corrosion resistance, flexibility, and adhesion. Quantum primers provide the foundation for a superior coating system. Colors that are currently available include white, yellow oxide, gray, beige, red, and black.

PHYSICAL PROPERTIES:

Weight Solids:	50% to 58%
Volume Solids:	37% to 42%
Resin Type:	Epoxy Ester
Gloss:	Low Semi-Gloss
Theoretical Coverage:	600 to 672 square feet at 1.0 mil
Weight per Gallon:	10.0 to 11.0 pounds
Viscosity:	#3 Zahn – 25 to 30 seconds, 65 KU, at 77º F
EPA VOC:	2.2 pounds per gallon
Actual VOC:	1.3 pounds per gallon

SURFACE PREPARATION: The service expectancy of a coating is primarily dependent upon good surface preparation. The surface to be coated should be free of mill scale, rust, oil, and other contaminates, including salt deposits. Quantum may be applied over steel, aluminum, or fiberglass.

Steel: Bare steel areas should be treated with iron phosphate conversion coatings and adequate rinsing.

Aluminum: Aluminum should be treated with appropriate metal cleaners and conditioners. For optimum adhesion, hot rolled steel should have the mill scale removed by an abrasive blast to SSPC-SP-6 to an average profile of 1.5 mils and then coated before flash rusting occurs.

REDUCTION: Quantum Waterborne Primers will atomize easily, and may be sprayed without reducing the viscosity. If reduction is necessary, thin sparingly with water. Do not exceed a 10% reduction by volume. When reducing larger containers or dip tanks, use a mixture of 80% water and 20% N-8001 Butyl Cellosolve.

APPLICATION:

Airless: Airless tip sizes should be in the .013 to .017 range.

Electrostatic Spray: Quantum primers can be sprayed with all types of application equipment. Proper safeguards must be in place to spray with electrostatic equipment.

In-Line Heat: Surface temperatures musts be above 50°F and relative humidity should be below 85%. Coating must be cured before exposing to moisture or freezing temperatures.

Dry Film Thickness: For best results, dry film thicknesses should be approximately 1.5 mils above profile. This will require wet film thicknesses in the range of 3.0 to 5.0 mils.

DRY TIMES: Dry times are directly related to water evaporation, and these characteristics are dependent upon humidity and air circulation. Fans and air movement will aid drying. Normally, Quantum Waterborne Primers can be topcoated after approximately 30 minutes and surface must be tack free. After seven days the primer should be re-primed or sanded before applying a topcoat, to ensure inter-coat adhesion.

Force Drying: Force drying can be done at 140°F to 180°F for 20 to 30 minutes. Although initial drying is fairly fast, full hardness may not be achieved for several days depending on conditions.

Waterborne Primer System

CLEAN UP: Flush lines with water or a water/butyl cellosolve mixture. If the coating has dried, use ketones to clean up.

PERFORMANCE: Typical, tested on B-1000 panels at 1.0 to 1.5 mils DFT
Gravelometer: ASTM D-1370 – 4A excellent (SAE J400)
Salt Spray: ASTM B-117 – 240 hours – less than 1 mm creep
Adhesion: ASTM D-3359 – 5B no loss

For enhanced corrosion and chemical resistance: QF02-42058 Quantum Activator can be added at an 8A:1B ratio

SAFETY PRECAUTIONS: Refer to SDS for specific information. All information subject to change without notice.

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