



**ENGINEERED  
MARINE COATINGS**

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## QUANTUM<sup>99</sup> HIGH SOLIDS REPAIRABLE MARINE POLYURETHANE TOPCOAT

### PRODUCT DESCRIPTION

QUANTUM<sup>99</sup> is a 2K acrylic-polyester hybrid polyurethane topcoat engineered for heavy duty and decorative marine environments. This high solids topcoat provides superior protection and beauty to all watercraft, aircraft, and other specialty equipment requiring excellent chemical and weather resistance, excellent reparability, superior durability, superior stain resistance, and superior DOI. QUANTUM<sup>99</sup> is the featured topcoat for EMC<sup>2</sup>'s QUANTUM High Solids Repairable Marine Finish System and is available in standard marine, metallic, and custom colors. Not for use below the waterline.

### ADVANTAGES

- ULTRA-HIGH GLOSS AND GLOSS CLARITY (DOI)
- SUPERIOR DURABILITY AND ABRASION RESISTANCE
- ACRYLIC-POLYESTER HYBRID COMBINES AEROSPACE TOUGHNESS WITH AUTOMOTIVE REPAIRABILITY
- LONGEST IN-SERVICE LIFE
- PROPRIETARY FLOW CONTROL PACKAGE IMPROVES FLOW, GLOSS, AND GLOSS CLARITY
- 2X SOLIDS = 2X COVERAGE AS LEADING BRANDS
- HIGH SOLIDS = FEWER COATS AND VOC COMPLIANCE
- EASY TO MIX/APPLY
- EXCELLENT REPAIRABILITY -> PERFECT APPLICATION EVERY TIME
- APPLY BY SPRAY, BRUSH OR ROLLER
- MIX RATIO: BRUSHING 2/1; SPRAY 1/1

### PARTS

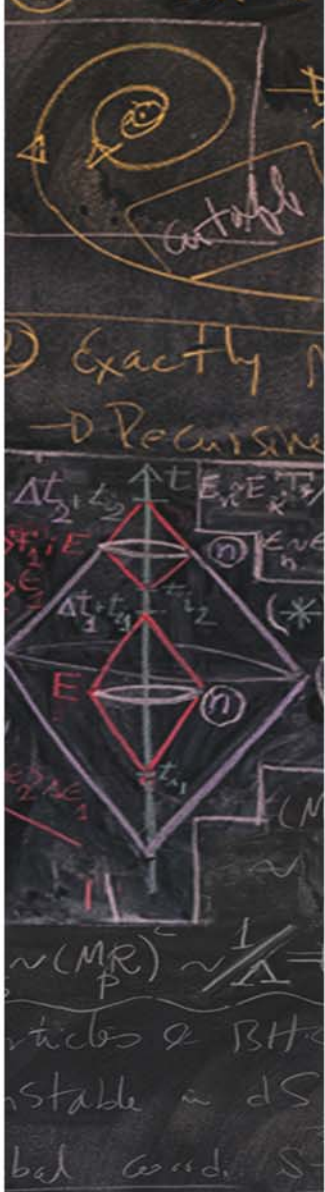
99-BA1-####	QUANTUM <sup>99</sup> BASE COMPONENT
99-A-100	QUANTUM <sup>99</sup> SPRAY ACTIVATOR (1/1 MIX)
SR-99	QUANTUM <sup>99</sup> SPRAY REDUCER
99-ABR-2001	QUANTUM <sup>99</sup> BRUSHING ACTIVATOR (2/1 MIX)
SR-95	QUANTUM BRUSHING REDUCER
99-X-105	QUANTUM <sup>99</sup> URETHANE ACCELERATOR SOLUTION
99-X-113	QUANTUM FLATTENING PASTE

### PHYSICAL PROPERTIES

APPEARANCE:	GLOSS, VARIOUS COLORS
GLOSS:	>92 @ 60°
DOI:	>84 @ 20°
ADMIXED VISCOSITY:	16 - 18 ZAHN #2
VOLUME SOLIDS (ADMIXED):	52+/-2%
POT LIFE:	4 HOURS @ 72F
DRY TO TAPE:	7-9 HRS @ 72F, 50% RH
	USE 99-X-105 QUANTUM <sup>99</sup> ACCELERATOR TO ACCELERATE DRY TIMES
COVERAGE @ 1 MIL (NO LOSS):	800-825 FT <sup>2</sup> /GAL
COVERAGE @ 3 MILS (NO LOSS):	250-275 FT <sup>2</sup> /GAL
VOC ADMIXED:	<420 G/L (3.5 LBS/GAL) – ALL COLORS
SHELF LIFE:	2 YEARS FROM DOM

### SURFACE PREPARATION

Metal surfaces should be primed with corrosion inhibiting primers, such as QUANTUM<sup>30</sup> Chromated Corrosion Inhibitive Epoxy Primer. The QUANTUM<sup>45</sup> Epoxy Surfacing Primer or QUANTUM<sup>HB</sup> High Build Epoxy Primer should be applied over QUANTUM<sup>30</sup> and sanded to the desired smoothness before applying the QUANTUM<sup>99</sup> Topcoat. The QUANTUM<sup>45</sup> Primers can be applied directly to properly abraded wood, fiberglass/gelcoat, carbon fiber, and previously



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Painted surfaces. Solvent clean with SR-002 QUANTUM Surface Prep Cleaner prior to application such that surfaces are free from dust, oils, corrosion or any other contaminants using lint free cloth and the wipe-on/wipe-off method. Tack rags are not necessary or recommended prior to QUANTUM<sup>99</sup> application. Refer to primer data sheets for complete application details. See EMC's QUANTUM Product Selection Guide for recommended primer/topcoat systems.

## MIXING

Shake or stir base component and activator well.

**SPRAY:** To 1 part QUANTUM 99-BA1 series base slowly add 1 part 99-A-100 Spray Activator by volume. Agitate to ensure complete mixing. Though not normally required, a 10-15% reduction by volume of the admixed paint with SR-99 Medium Reducer, SR-001 Fast Reducer, SR-005 Slow Reducer, or SR-350 VOC Compliant Medium Reducer may be used for proper application, film thickness control, and a smooth film appearance.

**BRUSH/ROLL:** To 2 parts QUANTUM 99-BA1 series base slowly add 1 part 99-ABR-2001 Brushing Activator by volume. Agitate to ensure complete mixing. Reduce up to 33% as needed with QUANTUM SR-95 Brushing Reducer. Example: 8 oz. 99-BA1 Base, 4 oz. part 99-ABR-2001 B/R Activator, 0-4 oz. SR-95 Brushing Reducer.

Allow mixed material to stand for 5 minutes prior to reduction and application.

## APPLICATION

**SPRAY:** This product can be applied using conventional air spray equipment, HVLP, Graco Pro 4500 air electrostatic, or Graco Pro 4500 air assisted airless electrostatic. Please consult your EMC representative for specific equipment settings.

1. Make sure pots, guns, and lines are purged and cleaned.
2. Mix thoroughly and filter strain before spray applying.
3. Spray atomizing pressure: 50-60 psi (3.45-4.15 bar) Pot pressure: 10-12 psi (0.69 – 0.83 bar) using a 60' fluid hose (3/8" diameter) Delivery Rate: 8-10 fluid oz (236-295 mL) per minute
4. Best application results are obtained by applying two to three medium wet coats, allowing a 45-90 minute "tack-off" period between coats.
5. If the dry time between coats exceeds the maximum recoat time (48 hrs for spray, 12 hrs for brush/roll @72F), the surface should be thoroughly abraded with 320 or finer grit sandpaper.
6. Recommended dry film thickness is 2-3 mils (50-75 microns). Some colors may require thicker films to achieve complete hiding.
7. Pot life is 4 hours. However, for best results use the product within 2 hours of mixing. A fresh mix is recommended for the final coat.
8. Coating will dry to touch in 2 hours and dry to tape in 7-9 hours at 72F. Product is able to be buffed in 48 hours at 72F. Cure time can be accelerated by using 99-X-105 QUANTUM Urethane Accelerator.
9. Full properties are achieved after seven days cure.

**BRUSH/ROLL:** Use a 1/8"-3/16" nap solvent resistant foam roller. In most cases, tipping is not necessary, simply roll apply in uniform coats using the roller to uniformly "stretch" the paint. Be careful not to overwork the film (@ 72F wet edge is ~90 seconds). Second and third coats can be applied once subsequent coats are dry through (~4 hours @ 72F), though sanding between coats can provide a smoother final appearance. During application, keep in mind that QUANTUM is very repairable – imperfections can be polished in 48 hours @72F (cure time can be accelerated with 99-X-105 QUANTUM Urethane Accelerator).

**NOTE:** Application of these product systems requires recommended temperature/humidity conditions and film thickness ranges. The material, hangar, and substrate temperature should be no lower than 45F before, during, and after application. Do not apply paint materials to surfaces less than 5F above dew point, or to surfaces warmer than 125F. Substrate temperature should be minimum 45F to maximum 125F.

## PRECAUTIONS

Use with adequate ventilation and proper respiratory protection. See MSDS for complete details of composition and precautions.