

QUANTUM⁴⁵ CHROMATED EPOXY PRIMER



INTRODUCTION

Quantum⁴⁵ Chromated Epoxy Primer is a high performance two-component strontium chromate epoxy primer designed for use on aluminum and steel with excellent corrosion and chemical resistance.

USES

Quantum⁴⁵ Chromated Epoxy Primer is designed to prime and seal old and new properly prepared metal surfaces to provide superior corrosion protection and chemical resistance. It may be coated directly with Quantum⁹⁹ Polyurethane Topcoat or further primed with other Quantum⁴⁵ Epoxy Primers where higher build and fairing are necessary. Quantum⁴⁵ Chromated Epoxy Primer may be used above or below the waterline.



PHYSICAL PROPERTIES

Appearance:	semi-gloss translucent yellow or green
Gloss:	40-60 @ 60°
Viscosity (admixed):	14 - 16" Zahn #2
Volume solids (admixed):	40 +/-2%
Pot life:	8 hours @ 72°F
Recommended DFT:	0.4-1.0 mils (10-25 microns)
Coverage @ 1 mil (no loss):	640 ft ² /gal
Coverage @ 0.5 mils (no loss):	1280 ft ² /gal
VOC (admixed):	<420 g/l (3.5 lbs/gal)
Pencil Hardness:	2H
Impact Resistance:	Direct/Reverse > 80 in/lb
Shelf Life:	2 years from DOM



MIXING

COMPONENTS

45-IP-4094	Chromated Epoxy Primer Base
45-IPA-100	Chromated Epoxy Primer Activator
SR-45	Quantum Epoxy Spray Reducer
SR-350	Quantum VOC Compliant Reducer (<335 g/L)
SR-002	Quantum Surface Prep Cleaner
45-ASC-RTU	Quantum Aluminum Surface Conditioner

MIX RATIO



SPRAY/BRUSH	PARTS	EXAMPLE
45-IP-4094	1	8 oz.
45-IPA-100	1	8 oz
Reducer	0-0.125	0-2 oz





MIXING

1. Shake or stir 45-IP-4094 Base to ensure all solids are properly mixed in.
2. Mix 1 part 45-IP-4094 Base with 1 part 45-IPA-100 Activator by volume.
3. Reduction is not normally required, however a 10-25% reduction by volume of the admixed paint with SR-45 Epoxy Spray Reducer may be used to control film thickness and appearance.
4. Induct 15 minutes prior to reduction and application.

APPLICATION



ALUMINUM SURFACE PREPARATION (NON-ANODIZED)

1. Thoroughly clean and degrease surface using SR-002 Quantum Surface Prep Cleaner (two rag method or aerosol spray and wipe dry)
2. Sand with 220-400 grit or use abrasive scour pads to create a water break free surface.
3. Blow off the surface thoroughly with clean, dry compressed air to remove all sanding residue and any dust or dirt. Use a clean brush or broom if necessary.
4. Apply 45-ASC-RTU Quantum Aluminum Surface Conditioner*
5. Rinse surface within 5 minutes of 45-ASC-RTU application with fresh water.
6. Blow or wipe down surface to ensure all water removed from surface and surrounding areas.

NOTE: Plan work shift such that sections can be abraded, cleaned, treated, and primed within 8 hours (4 hours if near salt water) as freshly exposed aluminum will oxidize rapidly.

SPRAY APPLICATION SETUP



1. HVLP: Adjust air pressure at cap to 8-10 psi.
2. Pressure Feed: Adjust air pressure at the gun to 28-32 psi with a fluid delivery of 8-12 ounces per minute.
3. Conventional: Adjust air pressure at the gun to 28-32 psi for pressure feed applications with a fluid delivery of 8-10 ounces per minute.

EQUIPMENT¹

Gun Type	Nozzle	Air Pressure
Conventional Siphon Feed	1.2-1.4 mm	28-32 psi
Conventional Gravity Feed	1.0-1.4 mm	28-32 psi
Conventional Pressure Feed	0.8-1.2 mm at 8-10 oz/min	28-32 psi
HVLP Gravity Feed	1.2-1.4 mm	8-10 psi at cap
HVLP Pressure Feed	0.8-1.2 mm at 8-12 oz/min	8-10 psi at cap

¹Refer to the manufacturer's directions for gun specific recommendations.

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 45°F before, during, and after application. Do not apply paint materials to surfaces less than 5°F above dew point, or to surfaces warmer than 125°F. Substrate temperature should be minimum 45°F to maximum 125°F.

SPRAY APPLICATION

Spray-apply in one smooth wet coat. Multiple passes may be needed for extremely rough surfaces. Application over the recommended dry film thickness may result in cracking or splitting. DO NOT SPRAY TO HIDE - substrate should remain visible through the film.





DRY TIMES

Touch	30 min
Through	2 hours
Full Cure	7 days
Overcoat (epoxy)	45 mins min/48 hours max
Overcoat (polyurethane topcoat)	60 mins min/48 hours max

²Air dry and overcoat times are dependent on shop conditions. Use 45-X-154 Epoxy Accelerator to accelerate dry times.

³If recoating after 24 hours, scuff sand with 320-800 grit and/or use 45-X-117 Adhesion Promoting Surface Treatment.

