



# Metal Primer

6455/044

## TECHNICAL BULLETIN 712 1/14

- Forms excellent adhesive bond to most bare metals.
- For use above and below the waterline.
- Recommended for all underwater metals and running gear.



6455/044 Metal Primer is a two component, self-etching wash primer for use only on bare metals including steel, stainless steel, cast iron, copper, bronze, galvanized steel, lead, and aluminum. It forms an excellent adhesive bond to metal hulls, keels, centerboards, and other underwater running gear, and can be used above or below the waterline. Metal Primer can be over coated with epoxy primer, tie-coat primer, topside enamels, or antifouling paint.

### APPLICATION INFORMATION

Shake or stir 6455 Metal Primer thoroughly before using. Make sure any pigment settled to the bottom of the can during storage has been properly remixed into suspension. Add the complete pouch of 044 Metal Primer Activator to the 6455 Metal Primer very slowly with constant stirring. If smaller amounts of primer are going to be mixed, add 1 volume of Activator to 4 volumes of the Metal Primer. Do not mix more material than can be used in 8 hours. The mixture of Primer and Activator will still be fluid after 8 hours but should not be used since the quality of adhesion to metals will be reduced. Metal Primer may be applied by brush, roller, conventional or airless spray. For brush application no thinning is necessary. For roller application thin 10 to 15% with denatured alcohol. Add 20 to 25% denatured alcohol for spray application. Apply one thin wet semi-transparent coat to metal surfaces only. It will not completely hide the substrate but will have a greenish-brown tint. Do not apply over old paints or primers and do not apply more than one coat of this primer. Do not apply 6455 Metal Primer on extremely humid days or when rain is threatening. Do not apply in the late afternoon when working outdoors as the wet film may be adversely affected by dew. When working in cooler temperatures be sure that the air and surface temperature will remain at or above 50°F until the primer is dry.

### SURFACE PREPARATION

Coating performance, in general, is proportional to the degree of surface preparation. Follow recommendations carefully, avoiding shortcuts. Inadequate preparation of surfaces will virtually assure inadequate coating performance.

#### PHYSICAL DATA

VEHICLE TYPE: Polyvinyl Butyral  
 FINISH: Flat  
 COLORS: Semi-transparent greenish brown  
 COMPONENTS: 2  
 CURING MECHANISM: Air dry/Reaction with metal surface  
 SOLIDS (theoretical):  
 By weight...19.5 +/- 2%  
 By volume...10.0 +/- 2%  
 COVERAGE: 400 sq. ft/gal.  
 VOC: 698 g/l (5.82 lbs/gal )  
 FLASH POINT: 65°F (SETA)

#### APPLICATION DATA

METHOD: Brush or roller. When applying by roller use a short nap (3/16 inch maximum) roller cover  
 NUMBER OF COATS: One only. Do not apply a second coat of 6455 Metal Primer over the first as poor adhesion may result.  
 DRY FILM THICKNESS PER COAT: .3 to .5mils  
 APPLICATION TEMP: 50° F. Min. / 90°F. Max.  
 APPLICATION HUMIDITY: 0% R.H. Min. / 80% R.H. Max.  
 DRY TIME\*: To Touch To Topcoat  
 80-90°F 15 Minutes 1 Hour  
 65-80°F 30 Minutes 2 Hours  
 50-65°F 1 Hour 4 Hours  
 Maximum recoat time is 48 hours @ 65-80°F  
 \*Allow 8 hours drying before over coating with 4700/4701 Hi-Build Epoxy Primer.  
 THINNER: Denatured Alcohol  
 CLEANER: Denatured Alcohol

#### ASSOCIATED PRODUCTS

6627 Tie Coat Primer  
 4700/4701 Pettit Protect Epoxy Primer Gray  
 4100/4101 Pettit Protect Epoxy Primer White  
 4400/4401 Aluma-Protect Epoxy Primer  
 Pettit Antifouling Paint



## SYSTEMS

**Aluminum, Copper, Bronze, Lead, Steel, Stainless Steel, Cast Iron or Galvanized Steel:** Clean the surface thoroughly by wiping with Pettit 120 Brushing Thinner or Lacquer Thinner. Sand or abrade the surface with 80 grit sandpaper or sandblast to remove all traces of corrosion, rust or millscale. Clean all sanding or sandblast residue off the prepared surface by blowing with compressed air or by vacuuming. Immediately apply one, thin, wet semi-transparent coat of 6455/044 Metal Primer. Be sure the surface temperature is above 50°F before priming.

Consult the Underwater Metal Systems chart below to determine your choice of top coating. Depending on the system you choose, apply one or two coats of 6627 Tie Coat Primer, two coats of 4400/4401 Aluma-Protect, or two coats of Pettit Protect 4700/4701 High Build Epoxy Primer (allow 6455/044 Metal Primer to dry at least 8 hours before applying 4700/4701 High Build Epoxy Primer). Check Pettit's topside or bottom paint labels for recommended procedures on applying these products.

**Fiberglass or Wood Surfaces:** Do not use 6455 Metal Primer on fiberglass or wood surfaces.

**Painted Surfaces:** All old paint regardless of its condition must be removed before using 6455/044 Metal Primer. The Metal Primer will not etch old paint and will not develop acceptable adhesion unless it is in contact with bare, clean metal surfaces. Bare Aluminum Masts & Spars: Wipe the bare metal surface free of oil and grease with Pettit 120 Brushing Thinner. Remove oxidation and etch the surface with medium grit emery cloth. Apply one thin wet coat of 6455/044 Metal Primer; allow to dry per the recommended dry time above then apply two coats of 6627 Tie Coat Primer followed by two coats of Pettit Easyepoxy.

### Underwater Metal Systems

	Good System	Better System	Best System
<b>Outdrives</b> (Bare metal)	Metal Primer 6455/044* (1 coat) Vivid Free or Spray Alumaspray + (Apply 1 aerosol can per unit)	Metal Primer 6455/044* (1 coat) Tie-Coat Primer (1 coat) Ultima Eco, Hydrocoat Eco, or Vivid Antifouling (2 coats)	Metal Primer 6455/044* (1 coat) Tie-Coat Primer (1 coat) Ultima Eco, Hydrocoat Eco, or Vivid Antifouling (2 coats)
<b>Outdrives</b> (Previously Painted)	Scuff Surface Ultima Eco, Hydrocoat Eco, or Vivid Antifouling (2 Coats) or Spray Alumaspray + (Apply 1 aerosol can per unit)	Scuff Surface Tie-Coat Primer (1 coat) Ultima Eco, Hydrocoat Eco, or Vivid Antifouling (2 Coats)	Scuff Surface Tie-Coat Primer (1 coat) Ultima Eco, Hydrocoat Eco, or Vivid Antifouling (2 Coats)
<b>Stainless Steel &amp; Bronze</b>	Sandblast or Abrade Surface Spray Prop-Coat Barnacle Barrier (2-3 Coats)	Metal Primer 6455/044* (1 coat) Tie-Coat Primer (1 or 2 coats) Hydrocoat Eco or Vivid (2 coats) or any other hard antifouling (2 coats)	Sandblast or Abrade Surface Metal Primer 6455/044* (1 coat) 4700/4701 Pettit Protect (2 coats) Hydrocoat Eco or Vivid (2 coats) or any other hard antifouling (2 coats)
<b>Aluminum Hulls</b>	Metal Primer 6455/044* (1 coat) Pontoon Pro, Ultima Eco, Hydrocoat Eco or Vivid Free (2 coats) (Smooth non-abraded surfaces only)	Metal Primer 6455/044* (1 coat) Tie-Coat Primer (1 or 2 coats) Pontoon Pro, Ultima Eco, Hydrocoat Eco or Vivid Free (2 coats)	Sandblast or Abrade Surface 4400/4401 Aluma Protect (2 coats) 4700/4701 Pettit Protect (2 coats) Pontoon Pro, Ultima Eco, Hydrocoat Eco or Vivid Free (2 coats)

If paints containing TBT were previously used, Tie-Coat primer must be applied before Alumaspray +, Alumacoat SR, or Vivid

\* If metal substrate temperature is below 60 degrees Fahrenheit, allow overnight dry before proceeding to next step