outdrives, underwater metals & keels

Outdrives are built out of aluminium. This presents compatibility issues with cuprous-oxide containing antifoulings. Similarly, propellers are typically made with aluminium or bronze. Keels are made of iron, steel or lead, or in some cases a mixture of a lead shoe on a steel keel.

It is important to establish the construction material of the metal you are working on. In particular, the keel needs to be treated with great care when preparing to keep it durable and free from corrosion.

THERE ARE 2 CRUCIAL ISSUES TO CONSIDER WITH ALL UNDERWATER METALS:

1) SUBSTRATE PREPARATION

The key to protecting your underwater metals from corrosion is correct preparation of the substrate, and choosing the best priming solution for your project. The first step is to identify what metal your substrate is, then to look up which products are compatible with the substrate in the table below.

2) ANTIFOULING SOLUTIONS

The second step is to simply choose your antifouling solution. Two rules should be followed:

- **Never apply an antifouling containing cuprous oxide to aluminium**
  e.g. outdrives, hulls
- Choose a hard, durable antifouling that will stand up to the wear and tear in these difficult areas.

REFER TO PAGES 26–29 TO SELECT THE BEST ANTIFOULING FOR YOUR PROJECT

	PROPELLERS, OUTDRIVES AND STERNGEAR
1	Clean thoroughly and abrade surface with 80 grade sand paper.
2	Etch prime and/or prime the surface. (As recommended in the specification table below.)
3	Apply suitable antifouling.

For more information on how to prepare your metal substrate for a perfect result, please refer to the 'Everything Else You Need To Know' section on page 54.

PROPELLERS, OUTDRIVES AND STERNGEAR

STAGE	PRODUCT	ALUMINIUM	BRONZE	WORK TIME*	OVERCOATING TIME**
CLEAN	Suitable liquid detergent	YES	YES	20	
ABRADE		Mechanically	Mechanically	30 to 60	
SURFACE PRIMER	Etch Primer	1	PA 10	5 to 15	See product label
PRIMER	Interprotect® or Primocon	5	∅	10 to 20	3
ANTIFOULING	Hard type. Refer to pages 26–27	2–3	2–3	10 to 20	See product label
				TOTAL PROJECT TIME:	**1 WEEKEND**

* Average time to apply one coat to average sized boat of 8m/25 feet.
** Minimum wait time between coats or between overcoating with the next step in the system, at a temperature of 23°C. Please consult product data sheets (available from International) for overcoating times at different temperatures.

KEY: No.of coats Minutes Hours ∅ Do not use for this purpose

REFER TO THE HANDY SPECS ON PAGES 32–33 FOR OUR FULL ANTIFOULING SCHEMES

Top Tip

KEEL SYSTEMS

SURFACE PREPARATION
Remove any poor condition, flaking coating to ensure the substrate is sound. Rub the surface down with wet and dry paper. Leave to dry thoroughly before inspecting condition of the substrate again.

IRON AND STEEL
GRIT BLAST TO SA 2.5. Heavy duty discing can also be used, but this is unsuitable for high performance systems, where all the paint should be removed.

LEAD
Remove the tarnished oxide layer by rubbing down with an emery cloth or by disc grinding. Remove grease and contamination by washing with a suitable liquid detergent. Prime with a single coat of Etch Primer.

CAST IRON
Angle grind, until metal is bright. Prime with Primocon.

HINTS TO HELP YOU ACHIEVE A PERFECT RESULT EVERY TIME

- ✓ Good preparation and priming is essential to ensure that the antifouling adheres to the surface for the duration of the product life.
- ✓ All antifoulings change colour when they are immersed. Don't be surprised if when you finish the job, the colour differs slightly from the colour chart. The true colour will develop 3 or 4 weeks after immersion.
- ✓ Along the water line antifouling can look dirty or even turn green. This is due to the reaction of the paint with oxygen. To avoid this problem use Trilux or Interspeed 2000 along the waterline and clean periodically to prevent fouling build-up.
- ✓ Boot-topping antifouling should not be applied over a topside finish.
- ✓ Propellers, outboards and sterndrives are either constructed of aluminium or bronze. There are no reaction problems in using copper containing products on bronze. For more information see page 35.
- ✓ Care should be taken not to paint zinc anodes, which are often located next to the prop shafts, as this will seriously reduce their effectiveness.
- ✓ When painting your outdrives, underwater metals and keels, the longevity of any antifouling is difficult to predict, as the coating adhesion is an issue, particularly on propellers.