

## TECHNICAL DATA SHEET

# SikaBiresin® AP861

**(FORMERLY MARINE 861 ULTRAFAIR)**

**EPOXY FAIRING COMPOUND  
FOR ABOVE AND BELOW WATERLINE APPLICATIONS**

### DESCRIPTION

SikaBiresin®AP861 is a convenient trowelable epoxy filler developed for fairing large surface imperfections on aluminum, steel, fiberglass or wooden marine vessels. The white resin and brown hardener, when mixed together at the convenient 1:1 volumetric mix ratio, yield a smooth, creamy paste which can be easily applied up to 1" thick without sagging or shrinking during the curing process. SikaBiresin®AP861 and AP861-1 Hardener are 100% solids systems and may be used above or below the waterline. When cured, this system features excellent sanding and finishing characteristics and accepts virtually all types of primers and paints. Note: This product is intended to be used as supplied. Do not thicken or thin this product as altering the formulation may lower physical properties.

### PROPERTIES

- Convenient 1:1 volumetric mix ratio
- Above or below waterline usage
- Color coded positive mix indication
- 0% VOC's (Volatile organic compounds)
- Up to 1" thick application with no sag or shrinkage
- Smooth, creamy paste mixes easily and trowels smoothly
- Large fairing imperfections filling/fairing
- Compatible with fiberglass, wood, aluminium, and steel marine vessels

## PHYSICAL PROPERTIES – AP861/AP861-1

Composition		RESIN SikaBiresin® AP861	HARDENER SikaBiresin® AP861 –1	MIXED
Mix ratio by weight		100	52	100/52
Mix ratio by volume at 25 °C		100	100	100/100
Aspect		Grain free paste	Grain free paste	Creamy non-sag paste
Color		White	Brown	Light Brown
Specific gravity at 25 °C	lbs./gal (g/cc)	ASTM D792 9.7 (1.16)	5.3 (0.64)	7.55 (.90)
Pot Life at 25 °C (1 gallon)	(minutes)			48.0
Pot Life at 25 °C (2 gallon)				42.0
Gel time at 77°F (152 grams) (25°C)	(minutes)			45 - 65
Cure to sand time @ (25°C)	(hours)			6 - 8
Total cure time @ 95°F @ 77°F (25°C) @ 55°F (13°C)	(days)			3 – 5 5 – 7 10 - 12

## MECHANICAL PROPERTIES at 23 °C <sup>(1)</sup>

Hardness	(Shore D)	ASTM D-2240	76 - 81
Flexural strength	(psi)	ASTM D-790	4,300
Flexural modulus	(psi)	ASTM D-790	260,000
Tensile strength	(psi)	ASTM D-638	3,700
Tensile elongation	(%)	ASTM D-638	2.1
Glass transition temperature °F (°C) (Tg) TMA		ASTM E1545	136 (59)
Coefficient of thermal expansion (CTE) TMA	10-6.F-1 / (10-6.C-1)	ASTM E1545	29 (52)

(1) Average values obtained on standard specimens / Cured 7 days at 25°C

## PROCESSING

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### SURFACE PREPARATION AND APPLICATION

Underlying primer coverage (gauged millage) must be to manufacturer's specification and it is critical that the underlying primer system must be allowed to reach complete cure before sanding. All finished primers and/or 861 must be blown down with clean, dry compressed air or wiped to a dust free state (clean rag). Sanding or further preparation of the 861 Fairing Compound is only possible after it has been allowed to fully cure to material specifications. Skinning of the 861 Fairing Compound to itself without proper scarfing is not recommended and will result in poor adhesion.

To achieve desired results, it is critical that all tools, mixing boards, containers, and all other material application accessories must be free from contamination. Proper mixing of 861 Fairing Compound must be followed. A thorough mix is evident only when a positive color change appears between the resin and hardener and is homogenous throughout. It is imperative that the 861 is applied to the prepared surface immediately upon achieving a proper mix. 861 Fairing Compound must not be applied beyond the recommended pot life.

## HANDLING PRECAUTIONS

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Normal health and safety precautions should be observed when handling these products :

- Ensure good ventilation.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheets.

## STORAGE CONDITIONS

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- Product shelf life of resin and hardener is 2 years when stored in original unopened containers between 65 – 77°F (15 – 25°C). Any opened can must be tightly closed. Any opened can must be tightly closed.

## PACKAGING

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Packaging information on request, please contact your local sales representative or find your local contact on [www.sikaadvancedresins.us](http://www.sikaadvancedresins.us)

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## LEGAL NOTICE

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The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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