# **Technical Data sheet**



# **Epoxy Resin RS 850 Casting**

## **Product Description:**

Is a water-clear epoxy casting resin developed to offer unrivalled clarity, air release and UV resistance. Epoxy Resin HF 1436 has been formulated for maximum compatibility with a wide range of substrates and mold materials and is particularly suited for casting into wood where it can be used to create stunning thick. Clear resin infills in furniture - making it the ultimate 'river table' epoxy.

#### **Product Feature:**

The product is our water clear, UV stabilized epoxy system for applications that require a low color, low yellowing epoxy resin, such as for surfboard lamination and coating. It has an ideal viscosity for a wide range of applications ranging from hand layup, room temperature cure processes to resin infusion.

#### **Product Uses:**

Furniture: River Tables, Knot Holes, Crack Filling

Wood and Resin Projects: Lamps, solid cast blocks of wood and resin.

Clear Castings: Such as Sculptures, Figurines, Paperweights

**Encapsulations: Dried Flowers, Stones, Models.** 

Wood Turning: Bowls, Spheres & Vases.

#### Packing:

The product is available in:

700 g Set

1.4 kg set

5 kg set

14 kg set

#### Shelf life:

12 month from the production date





Typical Physical Properties						
Physical State:	Part A: Clear Liquid -	Part B: Colorles	s Liquid			
Specific Gravity g/ml @ 25°C	Part A: 1.11 -	Part B: 0.98	(mixed 1.08 )			
Pot Life:	2 hours (25 ° C)					
Recommended temperature:	20-30 ° C					
Cured to Solid State @ 25°C	24 hours					
Cured to maximum strength	7 days					
@ 25°C						
Shore 'D' Hardness @ 25°C	80					
Mixing ratio	Part A: 10 to Part B: 4	(by weight)				

### **Application:**

Use two clean plastic containers of equal volume to measure the correct proportion of resin and hardener. Pour the contents of both into a larger container and stir the two ingredients thoroughly, for at least 3 minutes —longer in cooler temperatures. Tip the mixed resin and hardener into a second large container and thoroughly mix again for a further 1-2 minutes. Take care to stir the material slowly so air entrapment is kept to a minimum. Air bubble release is greatly enhanced by the use of a small heat gun or mini gas torch. Hold the torch approximately 100 to 150mm off the surface and keep moving the flame across the surface. Heat can be applied as many times as needed in the 30 minute working time. Inspect and remove any lint with tweezers.

#### **Ambient Temperature:**

Like most epoxy resins, the way that Epoxy Resin HF 1436 will cure is very dependent upon the ambient temperature. The system has been designed to work in ambient temperatures between 20°C and 30°C. For best results, an ambient temperature of between 20°C and 25°C is recommended. The Epoxy Resin HF 1436 and hardener also needs to be used and cured at an ambient temperature between 20°C and 25°C to achieve optimum results. If the product temperature is over 25°C or falls below 20°C it can affect the performance of the resin.

#### **Humidity:**

Whilst Epoxy Resin HF 1436 is curing, it can absorb moisture from the air. In higher humidity environments, this moisture absorption can affect the surface finish and therefore, for best results, avoid pouring Epoxy Resin HF 1436 in humid environments (relative humidity of 70% or more). This becomes particularly important in lower ambient temperatures where a slower cure leaves the uncured resin exposed to humid area for longer.

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#### **Moisture in Wood:**

Epoxy Resin HF 1436 has excellent tolerance to modest levels of moisture but can still be adversely effected by higher moisture content in wood and other substrates. Wood with a high moisture content is also liable to move (shrink) as it dries out which can cause 'bowing' or distortion of the piece if the wood starts to dry after the resin layer has been cast. Ensure wood is properly seasoned and dried before use.

## **Sealing Coat - Required for All Porous Surfaces:**

When working with porous substrates such as wood, chipboard, concrete or ceramics it is highly recommended to first seal the substrate with a thin application of Sealer PU 205 Doing so will seal and stabilize the surface, greatly improving the flatness of the final pour. The sealing coat must be allowed to fully cure and then 'keyed' before proceeding. The sealing coat can be applied with a disposable brush.

# **Trapped Air - Heat Gun or Blow Torch Required?**

Epoxy Resin HF 1436 includes advanced technology to help it to expel air that has been entrapped by the mixing and pouring process and so in many cases the resin will fully release any trapped air to leave a beautiful bubble-free finish. After pouring, it usually takes the resin around 5-10 minutes to expel trapped air. Factors such as ambient temperature, mixing action, pouring thickness and the substrate you are pouring onto can all influence the appearance of trapped air (bubbles) within the resin. After around 10 mins, if you find that you can still see trapped air bubbles with this resin then lightly passing over the surface of the resin with a heat gun or blowtorch on a low setting will help to dispel any bubbles. In both cases only ever use a light pass and wait for any heat in the surface to dissipate before repeating.

**How Much Resin?** 

Mix Ratio Example		Mix Ratio Example			
Total	Part A	Part B	Total	Part A	Part B
50 g	36 g	14 g	1 kg	715 g	285 g
100 g	72 g	28 g	2 kg	1.43 kg	570 g
200 g	143 g	57 g	3 kg	2.14 kg	860 g
300 g	214 g	86 g	4 kg	2.85 kg	1.15 kg
400 g	286 g	114 g	5 kg	3.57 kg	1.43 kg
500 g	357 g	143 g	6 kg	4.28 kg	1.72 kg
600 g	428 g	172 g	7 kg	5 kg	2 kg
700 g	500 g	200 g	8 kg	5.70 kg	2.30 kg
800 g	570 g	230 g	9 kg	6.43 kg	2.57 kg
900 g	640 g	260 g	10 kg	7.14 kg	2.86 kg



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# **Safety and Handling:**

Please refer to the MSDS for the most up to date Safety and Handling information.

Despite their natural derivation, exposure to these materials represents hazards typical to all epoxy resins. Exposure should be minimized and avoided through the use of proper protective clothing and equipment and appropriate manufacturing controls. All persons who use, store, or transport these materials should properly understand the handling precautions and recommendations as stated in the MSDS.