

# ARTCAST TECHNICAL DATA SHEET

100% Solids, Medium Viscosity Topcoat



## Description

The ArtCast is a two-component (1A:1B) epoxy system designed for tabletops, countertops and various artwork crafting applications which is VOC-free, 100% solids and is virtually odor free. Best suited to protect or resurface several different surface types such as wood, metals, laminate (Formica), concrete and more. The product is easily cleanable. The Art Cast has a medium viscosity reducing dripping on the edges.

## Uses and Substrates

The ArtCast provides excellent results for the most demanding applications:

- + River tables
- + Tabletop and countertop top coat
- + Casting (top coat)
- + Furniture
- + Wood crafting
- + Art painting
- + Small encapsulations
- + Wood, metals, concrete, plastics, fiberglass, painting, granite, laminate (see Laminate/Formica Application section), Artwork, fabrics, etc.

## Advantages

- + Crystal clear, beautiful surface
- + Environment and health friendly (100% solids, VOC-free and no solvent)
- + Food safe
- + Virtually odor free
- + Easy application with long pot life and working time (50 minutes)
- + Ideal for resurfacing tables or countertops (clear or metallic)
- + Good elongation and excellent abrasion resistance
- + High resistance to amine blush and contamination (fish eyes)
- + Excellent for letting out bubbles, even with thick layers
- + Impermeability / low moisture sensitivity
- + High density of the product prevents dirt penetration resulting in low maintenance post application

## Application Data

<b>Mix Ratio</b>	1A : 1B
<b>Packaging</b>	0.5 US gallon kit 1 US gallon kit 2 US gallon kit
<b>Color</b>	Clear, Metallic Colors

<b>Coverage / US GAL</b>	inch	Sq. Ft.
	1/16	26
	1/8	13
	1/4	6,4
<b>Shelf Life</b>	One year, in original unopened factory pails under normal storage conditions.	
<b>Substrat temp</b>	Min 16°C / 61°F, Max 30°C / 86°F	
<b>Cure Time</b>	<b>22°C / 72°F and 30% Rel. Hum.</b>	
Working Time	50 min	
Tack Free	8 - 9 h	
Recoat Time	8 - 24 h	
Dry Through	20 - 24 h	

## Technical Properties

Hardness ASTM D2240	89-90 Shore D
Solids Content	100%
Viscosity	Clear 2400 +/- 100 cps
VOC Content	0 g/l

## Surface Preparation

Surface should be clean, dry and free of grease, oil, paint, curing agents or any contaminants that may inhibit proper adhesion. Ensure the surface is free of contaminants, and the pores are open to allow the product to penetrate. To open the pores of a substrate it must be sanded prior installation, except for encapsulation applications. When applying on non-conventional substrates, proper adhesion and compatibility tests must be performed.

If the product is applied over an existing epoxy system that has been cured for a period longer than 24 hours, it should be sanded with proper equipment. A mechanical bond to a sanded surface is required and the pores of the existing coating must be opened for better adhesion. Vacuum dust and properly wipe the surface prior applying the ArtCast. Conduct adhesion tests if there is a doubt about surface preparation.

## Mixing - Clear Topcoat

Pot life decreases if a larger amount of material is mixed at the same time. Pot life also decreases if ambient temperature is high. Thorough mixing is required until there is no more cloudiness when looking closely at the mix.

Mix one part of A and one part of B together at low speed in a separate container. The mixing container must be clean and free

of any outside particle. Never mix more than 0,5 gallon at a time, ideally mix one quart at a time. Mixing quantities can be larger for experienced users.

Mix thoroughly for 4-5 minutes, until a completely homogeneous mixture is obtained. Minimize the entrapment of air. Make sure to scrape sides and bottom of the mixing container so no unmixed material remains. Mixing should also be completed until there is no more cloudiness when looking closely at the mix.

Only mix the quantity of product required depending on the pot life and the working time required. When pouring the material, never scrape the sides of the mixing container where may be unmixed material. Unmixed material will create a soft spot on your work piece.

## Mixing - Topcoat with Metallic Pigments

Read the Mixing - Clear Topcoat No Metallic Pigments Section first.

Before starting to mix, make sure the ambient and the temperature of the surface to be coated is between 16 and 22 degrees Celsius. The warmer the surface to be covered, the greater the risk of unwanted circles appearing on the film. Add the metallic pigments in part A. With a clean mixing tool, mix part A individually at low speed for 4-5 minutes. This premixing step should be performed to minimize unwanted effects including circles or comet drags. In a clean container free of any external particles, combine one part A to one part B. With a clean mixing tool, mix thoroughly for 4-5 minutes, until a completely homogeneous mixture is obtained. Minimize air entrapment. Make sure to scrape sides and bottom of mixing container so no unmixed material remains.

Only mix the quantity of product required depending on the pot life and the working time required. Never mix more than 0,5 gallon at a time, ideally mix one quart at a time. Mixing quantities can be larger for experienced users. When pouring the material, never scrape the sides of the mixing container where may be unmixed material. Unmixed material will create a soft spot on your work piece

## Applying the Flood Coat

The flood coat can be applied using a foam brush or a squeegee (to minimize air entrapment). The surface is smooth, crystal clear and bubble free which is ideal for woodworking, art and hobby applications. During installation, avoid excessive handling of the product to limit the entrapment of air in the film. Air entrapment can affect the appearance of the surface during the curing process. To obtain depth and a smooth finish, it is recommended to apply a thick layer. It is recommended to use a torch or a heat gun to burst bubbles that are forming at the surface of the film.

This process will also flatten the surface.

**IMPORTANT NOTIFICATION:** Minimum thickness of 45 mils (single pour) is required when using the ArtCast as flood coat.

## Laminate/Formica Application

Experienced users can use the ArtCast on existing laminate (Formica) countertops. A variety of colors can be used, and marble-like effects can be achieved with the use of the Metallic Pigments. Before applying the product on a laminate countertop, the existing countertop needs to be primed.

## Recoat

It is possible to recoat without sanding if the prior coat has been applied within a window of 8-9 hours and 24 hours. We nevertheless recommend to sand between coats to optimize the aesthetics of the project. Sanding is required if the last coat of the product has been applied for more than 24 hours. The surface should be sanded/abraded until a uniform dullness is achieved. There should be no gloss on the prior coating after vacuuming and before applying the next coat. Dust must be wiped out prior applying the next coat.

## Square Footage

To calculate the square footage that will cover 1 US Gallon (3.78L) of material depending on the thickness, divide the number 1604 by the thickness sought in mils. One mil equals 1/1000 of an inch. For instance, if the thickness sought is ¼ inch, the calculation is 1604 divided by 250 mils (1000 x 1/4) which equals to 6.4 square feet per gallon.

## Clean Up

Denatured alcohol is best suited for cleaning. Excess material (A and B) should be mixed together and allowed to cure. Cured product may be disposed of without restriction. Uncured material should be stored in a suitable and sealed container and may be disposed in accordance with provincial / state/ federal regulations.

## IMPORTANT Limitations

This product should not be applied to substrates that show high levels of moisture/humidity. Although this product may be applied in a wide range of thickness, limitations may apply when curing time is taken into consideration. Everything else being equal, thicker is the film, quicker is the curing time. Drying time and pot life will be reduced in a hot environment. The drying time and the pot life will be longer in a cold environment as opposed to a hot environment. Never apply epoxy with a substrate and ambient temperature below 16 degrees Celsius. When applying on non-conventional substrates, proper adhesion and compatibility tests must be performed. Do not clean the finished surface during the week following installation. Keeping the product stored at room temperature will make the application easier and dry times shorter.

IMPORTANT NOTIFICATION: Minimum thickness of 45 mils (single pour) is required when using the ArtCast as flood coat.

Designer Epoxy stands behind the quality of its products. However, Designer Epoxy cannot guarantee final results since Designer Epoxy has no control over surface preparation, operating conditions and application procedures. Customers are solely responsible to test Designer Epoxy's products to determine if they perform as expected. In order to meet our strict requirements, we are continuously testing our coatings and on occasion, formulations may be modified to improve certain properties within each coating. Information and data included in this reference document may not be up to date as of the date of reference.

Contact Designer Epoxy for further information regarding the limitations of this product.

**Refer to the most recent Material Safety Data Sheet prior using this product.**

## Available Colors

**Clear, Metallic Color**