

## PRODUCT DESCRIPTION

HYDRACAST™ Cre'Art is a ready to use, plaster-based, fine grained refractory investment, specially formulated for use in artistic applications.

## Applications

This product has been developed to produce ornamental parts from copper alloys using the lost wax process. The formulation of the product HYDRACAST™ Cre'Art enables an ideal value for money positioning with good mechanical resistance characteristics and good surface finishing.

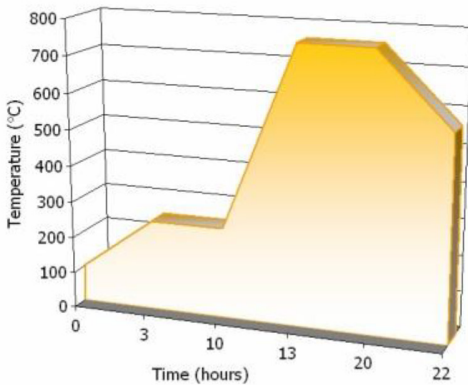
## TECHNICAL INFORMATION

% Water Used	36
Liquid Density	1.80
Mixing Time (minutes)	4
Working / Casting Time (minutes)	17
Initial setting Time (minutes)	24
Linear Expansion 1 hours after setting %	0.30%

The technical data outlined represents typical figures only. For further details, please contact Goodwin Refractory Services directly.

## INSTRUCTIONS FOR USE

Standard Firing Cycle



### Lost Wax Process

The recommended plaster to water ratio is 100 parts of plaster for 36 parts of water. This ratio can be modified (+/- 1 part) to precisely fit your application.

### Mixing

Mixing plaster in water is the most important step in making a mould and could heavily impact resistance, hardness and absorption properties if performed incorrectly.

For optimum quality, vacuum mixing is recommended.

Always ensure the following points:

1. Plaster and water are precisely weighed.
2. All equipment is clean.
3. The mixing cycle is adhered to.

### Casting

Pour the mix immediately after finishing mixing. Make sure that the mixture does not become too thick or too hard. Always pour the mixture so that it slowly covers the surface of the part to be reproduced, without trapping or creating air bubbles.

Vacuum casting avoids forming air bubbles.

### Plaster setting

Do not handle the plaster mould containing the wax model until it has reached its setting time to avoid any defects in the finished part.

Wait at least a minimum of 2 hours before starting thermal treatment.

### Dewaxing / firing

All water must be removed before pouring metal to obtain proper mechanical resistance and limit defects.

Note: drying time is heavily dependent on the size and number of cylinders in the oven.

Dewaxing is performed under moist conditions between 100/100°C, or dry conditions between 150/160°C, for 6 to 8 hours. Dewaxing at temperatures higher than 400°C produces a perfect interior surface by eliminating the last traces of wax.

### Standard firing cycle for an art foundry

- increase to 250°C (100°C/hr) and maintain for 6 to 8 hours.
- increase temperature to 760°C (150°C/hr)
- maintain at 760°C for 6 to 8 hours
- cool down at a rate of 100°C and maintain at the desired temperature

### Knocking-Out

The mould is left to cool down, then shattered by immersion in water and/or by using a high pressure cleaning system.  
The part can then be recovered to undergo finishing steps.

## PACKING AND SHELF LIFE

	Packaging Available	Shelf Life (month)
Bag	25 kg	12

When stored under dry conditions and in its original packaging, the product will have a specified shelf life that commences from the date of manufacture that is displayed on each sack. Shelflife depends on the packaging type. For those products where a defined 'best before' date is applicable, BBE (Best Before End) followed by the date will be displayed on each sack.

## STORAGE

Plaster based products are not recommended for conditions where they are likely to be located externally or in any way subjected to weathering or excessive dampness.

Absorption of moisture can result in changes to physical properties, including a reduction in the set strength of plasters and also a lengthening of setting time.

Gypsum minerals can be affected by absorption of moisture and may change physical properties.

To help protect the product during use, open or part used bags should be carefully folded and closed. Each bag is date stamped and stocks should be rotated so that the oldest material is used first.

## CERTIFICATION



This Product may generate dust and contain crystalline silicate. We therefore recommend that a mask be always worn whilst working with this refractory product and to ensure that the workplace is well ventilated.

## ENVIRONMENT, HEALTH AND SAFETY

Material Safety Data Sheets of Goodwin Refractory Services plasters and gypsum minerals are available for all products and may be obtained directly on our website.

No liability is accepted by Goodwin Refractory Services for injury to any person or loss or damage to property by improper use of the product.

## NOTIFICATION

The plaster to water ratios quoted are those used in Goodwin Refractory Services standard test methods and are not necessarily those used in practice. The precise consistency to use will need to be adjusted to suit the individual application. Changes to plaster to water ratio will influence product performance, particularly setting time and strength.

Unless otherwise stated, Goodwin Refractory Services standard test methods apply. To obtain a copy of the test method, please contact Goodwin Refractory Services directly. This booklet cancels and replaces any previous document. All information given is composed on good faith and may be subject to change. It's advisable to contact Goodwin Refractory Services in case of any doubt arising from the content of such this booklet or its validity.

## CONTACT

For more information, please visit our website  
[www.grscastingpowders.com](http://www.grscastingpowders.com)



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