

## Two Part Furan Resin Acid Cured No Bake

### CERAFURAN R-701

#### Product Data Sheet

**PRODUCT:** CERAFURAN R-701 is Available in two versions, depending on applications. Nitrogen free suitable for steel castings and another is with various nitrogen content suitable for ferrous and non-ferrous castings.

CERAFURAN is a ideal process for large castings such as machine tools, wind mill, cylinder blocks of marine engine. It is a two part process, resin is either co-polymer of Furfuryl alcohol with Urea-Formaldehyde or Phenol-Formaldehyde and catalyst is Sulphonic acid.

This is best process for mechanical sand reclamation compare to other no bake processes. The reclamation level with CERAFURAN R-701 is more than 90-92%.

APPLICATIONS:-CERAFURAN R-701 along with CERAFURAN C-710 is used for making mould and cores by no bake process for ferrous and non-ferrous castings. CERAFURAN offers best thorough curing characteristics. Flask less moulding is also possible with CERAFURAN process.

#### PHYSICAL PROPERTIES:

PROPERTIES	CERAFURAN R-701	CERAFURAN C-710
Appearance	Light brown clear liquid	Reddish brown clear liquid
Sp. Gravity @30°C	1.15 – 1.25	1.20 – 1.30
Viscosity by B4 cup@30°C	15 – 30 seconds	13 – 20 seconds
Free formaldehyde	< 0.5%	-
Shelf life from date of manufacture	6 months	12 months

### **THERMOCHEM PROCESSES PVT. LTD.**

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**CERAFURAN C-710** is available in wide range, to suit the seasonal demands of bench life, strip time and for metallurgical properties.

**SAND MIX PREPARATION:**

Dry silica sand [AFS 50-60]  
(free from carbonates and chlorides) -100 parts  
**CERAFURAN R-701** - 1.2- 2.0% based on sand,  
**CERAFURAN C-710** - 30-60 % based on **CERAFURAN R-701**

Note:- For good quality reclaimed sand, addition level will be  
**CERAFURAN R-701** - 0.9- 1.5% based on sand  
**CERAFURAN C-710** - 30-60 % based on **CERAFURAN R-701**

Sand mixing can be done in either batch or continuous mixer, but one should ensure for no free resin lumps in sand mix.

Addition level of **CERAFURAN C-710** controls the bench life and strip time.

Mixing cycle:

Dry silica sand + **CERAFURAN C-710** → mix for 1 – 1 ½ minutes  
+ **CERAFURAN R-701** → mix for 1 ½ - 2 ½ minutes

These are typical mixing times, which can vary with speed and type of mixer.

**Bench Life**- 5-20 minutes

**Stripping time**– 30 Minutes - 4 Hrs.

**STRENGTH COMPRESSIVE** (Resin-1.5% of sand, Catalyst-40% of Resin)

Time	Strength in kg/cm <sup>2</sup>
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1 Hr	5 - 10
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4 Hrs	20 - 25
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24 Hrs	>30
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Strength will vary with quality of sand and ambient atmospheric conditions.

**Mould & Core Wash:** We recommend water base refractory wash.



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ISO 9001 Certified Company

**SHELF LIFE:-**

CERAFURAN R-701 – 6 months from date of manufacturing

CERAFURAN C-710 – 1 year from date of manufacturing.

**STANDARD PACKING:-**

CERAFURAN R-701 – 225 kg MS/ HDPE drums.

- 1200 KG IBC TANK

CERAFURAN C-710 – 50/100/225 kg HDPE carboy/drum.

**STORAGE & HANDLING:**

CERAFURAN R-701 and CERAFURAN C-710, should stored separately, away from direct source of heat, moisture under roof at below 30°C

Never mix CERAFURAN R-701 and CERAFURAN C-710 together in a container, without sand. Direct mixing of CERAFURAN R-701 and CERAFURAN C-710 cause violent exothermic reaction.

Handle CERAFURAN R-701 and CERAFURAN C-710 with proper care by using safety tools like chemical resistance hand gloves, safety goggles

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