

## HOT BOX RESIN

### CERATHERM

#### Product Data Sheet

**PRODUCT:** CERATHERM – R 601 along with CERATHERM – C 610 & CERATHERM – S 620 is a specially formulated hot box binder system for sand moulds and cores for aluminium castings.

#### APPLICATIONS:

CERATHERM – R 601 is a resin (binder) with furfural alcohol as co-polymer.

CERATHERM – C 610 is a catalyst or hardener. It is a aqueous salt solution, mildly acidic in nature.

CERATHERM – S 620 is a release cum moisture resistance agent.

The CERATHERM – R 601, CERATHERM – C 610 & CERATHERM – S 620 are mixed as per below mentioned percentage with dry silica sand.

This prepared sand mix is blown into pre heated core box at 180–250°C. Due to heat from core box, resin & hardener from sand mix rapidly develops a bond to form core shape. The core is cured in the core box to develop handling strengths & is easily ejected from core box. Further Curing of core continues during the cooling of core.

#### PHYSICAL PROPERTIES:

##### CERATHERM

PROPERTIES	CERATHERM-R 601	CERATHERM-C 610	CERATHERM-S 620
Appearance	Reddish brown viscous liquid	Colourless liquid	Clear liquid
Specific Gravity @ 30°C	1.23-1.27	1.15-1.25	0.9-0.95
Viscosity by B4 Cup @ 30°C	1-4 minutes	12-16 Sec.	NA
Ph @ 30°C	7.5-8.0	NA	NA
Solids	62-66%	NA	NA
Storage Temperature	15-25°C	15-30°C	15-30°C

### THERMOCHEM PROCESSES PVT. LTD.

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**THERMOCHEM**

ISO 9001 Certified Company

Shelf Life from the date of manufacture	Three weeks from date of manufacturing	One year from date of manufacturing	One year from date of manufacturing
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### **SAND MIX PREPARATION:**

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

Dry silica sand	: 100 parts
CERATHERM - R 601	: 1.5 – 2.0 % BOS
CERATHERM - C 610	: 20 – 25% of CERATHERM – R
CERATHERM - S 620	: 25 % of CERATHERM – C

**Bench Life** : One hour, if covered properly by wet cloth.

### **ADVANTAGES OF CERATHERM BINDER SYSTEM:**

- Excellent quality of cores.
- Faster cure rate, high strengths.
- Low gas evolution than any other process.
- Lower curing temperature among other heat cured processes.
- Excellent shake out, better than any other process.
- Good humidity resistance.
- Excellent dimensional accuracy.
- Ideal process for aluminium cylinder head casting

### **STANDARD PACKING:**

CERATHERM - R 601 : 200kg MS drum

CERATHERM – C 610 : 50kg HDPE Carbouy

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CERATHERM- S 620 : 25kg MS/ HDPE Carbouy.

**STORAGE & HANDLING:**

Store under roof, cool and dry place, keep away from water, direct heat & sun light.

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