



**THERMOCHEM**  
ISO 9001 Certified Company



**CERAFLUX**  
*Products Accredited By Foundrymen*

**CERAFLUX GROUP OF COMPANIES**

## PRODUCT DATA SHEET

# CERATHERM

## (HOT BOX SAND BINDER SYSTEM)

**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.

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

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### 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	2-5 minutes	12-16 Sec.	NA
Ph @ 30°C	7.5-8.0	NA	NA
% Solids of 2 gm sample @150°C for 1 hr	57 - 65%	NA	NA
Storage Temperature	15-25°C	15-30°C	15-30°C
Shelf Life from the date of manufacture	2 months from date of manufacturing	12 months from date of manufacturing	12 months from date of manufacturing

### 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-601  
 CERATHERM S-620 : 25 % of CERATHERM C-610

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

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### **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 Yellow colour MS drum with Red colour belt at top).

CERATHERM C-610 : 50kg HDPE Carbouy.

CERATHERM S-620 : 30 Ltrs. HDPE Can.

### **STORAGE & HANDLING:**

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