



THERMOCHEM
ISO 9001 Certified Company



CERAFLUX
Products Accredited By Foundrymen

CERAFLUX GROUP OF COMPANIES

PRODUCT DATA SHEET

CERASET

(TWO PART PHENOLIC ESTER BINDER SYSTEM)

PRODUCT: CERASET R-301 is a highly alkaline phenol formaldehyde resin cured by CERASET C-310 at ambient temperature. The process is also known as phenolic ester nobake or Alphaset process. The resin cures in two stages, in first stage partial curing takes place and in second stage when mould or core comes in contact with molten metal.

The CERASET R-301 offers high hot strength than any other process. The process is nitrogen and sulphur free.

CERASET R-301 Phenol Formaldehyde alkaline resin acts as a binder
CERASET C-310 Ester catalyst.

CERASET C-310 is available in three versions Slow, Medium and Fast. Type of CERASET C-310 decides bench life and strip time.

APPLICATIONS:-

CERASET R-301 along with CERASET C-310 is used for making sand moulds and cores for Steel, S.G.Iron, CI and non-ferrous castings. The process comparatively less sensitive towards sand quality.

The process offers excellent thorough cure and stripping properties from pattern. Easy release from pattern is because of two stage curing mechanism of the process.

CERASET can be used with fresh sand, reclaimed sand or olivine sand.

THERMOCHEM PROCESSES PVT. LTD.

F-58, M.I.D.C. Gokul Shirgaon, Kolhapur – 416234, Maharashtra (India)

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PHYSICAL PROPERTIES:

CERASET

PRODUCT	CERASET R-301	CERASET C-310
COLOUR	Reddish Brown	Colourless to pale yellow
APPEARANCE	Clear Liquid	Clear Liquid
SPECIFIC GRAVITY @30°C	1.20 – 1.30	1.05 – 1.15
VISCOSITY BY B4 CUP @30°C	25 - 50 second	--
Shelf Life from the date of manufacture	2 months	6 months

ADVANTAGES:

Nitrogen and Sulphur free process.
High hot strength, no scab, veining.
Very less irritation while sand preparation.
No lustrous carbon generation.
Water washable resin.
Less susceptible to sand quality.
Ideal process for steel castings.

SAND MIX PREPARATION:

Dry silica sand [AFS 50-70] -100 parts
CERASET R-301 - 1.5 - 2 % based on sand
CERASET C-310 - 20-25 % based on CERASET R-301

Mixing cycle:

Dry silica sand + CERASET C-310 → mix for 1-2 minutes
+ CERASET R-301 → mix for 2 - 3 minutes.

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

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STORAGE & HANDLING:

CERASET R-301 and CERASET C-310 should be stored separately, away from direct source of heat, moisture and under roof at below 30°C.

Never mix CERASET R-301 and CERASET C-310 together in a container, without sand. Direct mixing of CERASET R-301 and CERASET C-310 causes a violent exothermic reaction.

Handle CERASET R-301 and CERASET C-310 with proper care by using safety tools like chemical resistance hand gloves, safety goggles.

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