

ALKYD RESIN

CERACURE

(THREE PART ALKYD BINDER SYSTEM)

Product Data Sheet

PRODUCT: CERACURE A-401 is a Alkyd resin, modified with vegetable drying oil and it is cured by CERACURE C-420(hardener) in presence of CERACURE B-410. This process is popularly known as alkyd isocyanate three part no bake.

The polyurethane bond developed by reaction between CERACURE A-401 and CERACURE C-420 is responsible for strength, whereas CERACURE B-410 is responsible for bench life and strip time. This process is recommended and suitable for almost all metal castings irrespective of weight and size.

CERACURE A-401-Alkyd resin acts as binder

CERACURE B-410-Metallic dryer acts as catalyst

CERACURE C-420- Isocyanate acts as hardener.

APPLICATIONS:

CERACURE A-401 alongwith CERACURE B-410 and CERACURE C-420 is used for making silica sand moulds and cores for steel, S.G. iron, Grey iron and non-ferrous castings. This process works well with fresh sand with no moisture and ADV <6 is ideal for success of process. As one of the constituent of process is isocyanate, contamination of moisture affects the performance of process.

This process offers good thorough cure properties and excellent release from pattern. It is the best process for stripping of core or mould from critical patterns.

THERMOCHEM PROCESSES PVT. LTD.

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

Ph.No.91-231-2671204 Fax: +91-231-2671091 Email: info@thermochem.in Website: www.thermochem.in



THERMOCHEM
ISO 9001 Certified Company

PHYSICAL PROPERTIES:

CERACURE

PRODUCT	CERACURE A -401	CERACURE B-410	CERACURE C-420
COLOUR	Yellowish brown	Reddish brown	Reddish brown
APPEARANCE	Clear Liquid	Liquid	liquid
SPECIFIC GRAVITY @30°C	0.90 – 0.95	1.00 – 1.10	1.18 - 1.20
VISCOSITY BY B4 CUP @30°C	60 – 240 second	14 – 22 seconds	14 – 19 seconds
Shelf Life from the date of manufacture	6 months	6 months	6 months

SAND MIX PREPARATION:

Dry silica sand [AFS 50-70]	-100 parts
CERACURE A-401	- 2 - 3 % based on sand
CERACURE B-410	- 3-10 % CERACURE A-401
CERACURE C-420	- 15-20 % CERACURE A-401

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

Percentage of CERACURE B-410 decides the bench life and strip time.

Mixing cycle:

Dry silica sand + premixed CERACURE A-401 and CERACURE B-410 → mix for 2-3 minutes
+ CERACURE C-420 → mix for ½ - 2 minutes.

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

Bench Life- 5-30 minutes

Stripping time–20-90 minutes.

STRENGTH COMPRESSIVE

Time	Strength in kg/cm ²
1 Hr.	5-10
4 Hrs.	15-20

THERMOCHEM PROCESSES PVT. LTD.

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

Ph.No.91-231-2671204 Fax: +91-231-2671091 Email: info@thermochem.in Website: www.thermochem.in



THERMOCHEM
ISO 9001 Certified Company

24 Hrs.

>30

Strength will vary with quality of sand and ambient atmospheric conditions.

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

SHELF LIFE:-

CERACURE A-401 – 6 months from date of manufacturing

CERACURE B-410 – 6 months from date of manufacturing

CERACURE C-420 – 6 months from date of manufacturing

STANDARD PACKING:-

CERACURE A-401 – 190/195 kg MS drums.

CERACURE B-410 – 20 kg MS drums.

CERACURE C-420 – 40 kg MS drums.

STORAGE & HANDLING:

CERACURE A-401, CERACURE B-410 and CERACURE C-420, should stored separately, away from direct source of heat, moisture under roof at below 30°C

Never mix CERACURE A-401, CERACURE B-410 and CERACURE C-420 together in a container, without sand. Direct mixing of CERACURE A-401, CERACURE B-410 and CERACURE C-420 cause violent exothermic reaction.

Handle CERACURE A-401, CERACURE B-410 and CERACURE C-420 with proper care by using safety tools like chemical resistance hand gloves, safety goggles.

THERMOCHEM PROCESSES PVT. LTD.

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

Ph.No.91-231-2671204 Fax: +91-231-2671091 Email: info@thermochem.in Website: www.thermochem.in