

Technical Data Sheet CCS CrackAttack® and CCS CrackAttack® FINE

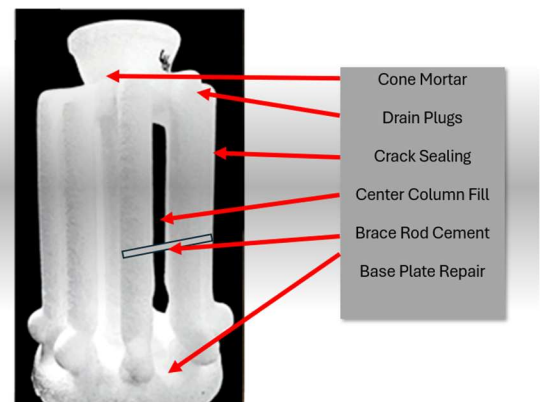
Revision Date: 11/25/2025

Description:

- A High Temp Mold Repair Cement for use in Investment Casting Foundries and Forge Linings where rapid repairs are required for high temperature applications.
- This dry powder binder refractory system that has >75% Alumina content. It comes with an engineered colloidal silica binder liquid system matched to the dry blend for optimized performance, strength and bonding to most types of refractories, especially investment casting shells.

Advantages:

- Rapid set-up time dramatically reducing ceramic production floor WIP
- High strength repair bonding
- Good wetting of all types of shell systems.
- High temperature stability
- Applied successfully in all forms of investment casting (directional solidification, single crystal and equiaxed shells)
- Has successfully re-attached broken sections of shell allowing to salvage the casting



Applications:

- Repairing mold cracks
- Gluing in vent plugs
- Plugging vent holes
- Filling down-feeds to prevent loss of metal
- A good choice for rapid repair of furnace and forge linings



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Directions For use:

- Prepare surfaces to be mended:
 - Clean all dust and debris from affected surfaces.
 - Prewet the surfaces with deionized water
- Mix CCS CrackAttack™ powder with CCS CrackAttack™ Binder at a ratio of 3.5:1 to 5:1. See example below:

Material	wt. (grams) (for paste consistency)
CCS CrackAttack® Powder	100 grams
CCS CrackAttack® Binder	20-28.5 grams

- Mix vigorously and thoroughly and apply quickly to the affected surfaces.
- Initial set will take place within 10 to 40 minutes.
- Best results result if the repaired mold sits for one hour prior to introduction into a preheat oven
- Repaired mold can be introduced into preheat ovens at temperatures up to and including 2200 °F

Testing Results:

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- Test results for typical aerospace trace elements are reflected on the trace element tables presented here.

Trace Element Analysis		Trace Element Analysis	
CCS CrackAttack®		CCS CrackAttack® Binder	
Element	Typical	Element	Typical
Lead (Pb)	<25	Lead (Pb)	<25
Bismuth (Bi)	<1	Bismuth (Bi)	<1
Silver (Ag)	<25	Silver (Ag)	<10
Antimony (Sb)	<25	Antimony (Sb)	<5
Zinc (Zn)	<50	Zinc (Zn)	<50
Tin (Sn)	<25	Tin (Sn)	<25
Iron (Fe)	<7500	Iron (Fe)	<100
Arsenic (As)	<10	Arsenic (As)	<1
Selenium (Se)	<10	Selenium (Se)	<1