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Technical
Data Sheet



Concrex®

Concrete repair patch

DESCRIPTION AND USES

Concrex®: An extremely versatile repair mortar that bonds strongly and permanently to the concrete and will not shrink when it cures. It is ideal for repairs where cement-based mortars would fail. Concrex uses a two-part epoxy novolac resin providing high resistance to chemicals and abrasion. It is designed for the repair of damaged areas in concrete and masonry up to 2 inches in depth and can be troweled to a feather edge. It is suitable for both interior and exterior applications. Concrex should not be used in areas subjected to steam cleaning or washing at temperatures above 140°F. Available in numerous colors to fit any project need.

Concrex® Sub Zero: For use in temperatures as low as -4°F.

Concrex® Rapid Set: A fast cure version which is suitable for heavy traffic in three hours.

Concrex® Deep Fill: Designed to fill deep repairs to within 1/4" of the finished floor level before finishing with Concrex. Can be applied at 1/2 - 4" thick in one layer and up to 4" in depth. Also available in a rapid set version.

PRODUCTS

20 LB KITS

A070507 - Concrex® Slv. Gray
A070808 - Concrex® Tile Red
A070209 - Concrex® Black
A100015 - Concrex® Navy Gray
A110017 - Concrex® Rapid Set
A140401 - Concrex® Sub Zero

50 LB KITS

A070510 - Concrex® Slv. Gray
A070811 - Concrex® Tile Red
A070212 - Concrex® Black
A100016 - Concrex® Navy Gray
A110018 - Concrex® Rapid Set
A080013 - Concrex® Deep Fill
A080051 - Concrex® Deep Fill Rapid Set

COMPANION PRODUCTS

J510010 - Mix & Apply Trowel
J510009 - 10" Finishing Trowel
A060006 - Tack Coat (screeding primer)

PACKAGING

20 lb. and 50 lb. kits

APPEARANCE

Flat smooth gray finish

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SURFACE PREPARATION

Surfaces should be clean, dry and free of all loose material. Wire brushing or sweeping is generally sufficient. If needed, wash with Bio-D or a suitable degreaser or detergent solution, to remove grease and oil, rinse and allow to dry.

PRIMING

A primer is not usually required if patch or crack repairing. Tack Coat adhesive primer is recommended when applying Concrex as a thin section screed or when applying to smooth, non-porous or metal surfaces.

MIXING

Concrex® should be stored at an ambient temperature above 50°F for approximately 8 hours prior to use. Do not use material if air and surface temperatures are below 50°F, apart from Concrex Sub Zero which can be applied at 15°F. Each pack of Concrex contains aggregate pre-blended with resin and the curing agent. Do not mix inside the plastic bucket. Wearing protective gloves, tip the aggregate on to a mixing tray or board. Shake the containers of curing agent thoroughly until the liquid is a uniform color. Form the aggregate into a mound and leave a small hole in the middle. Empty the curing agent into the hole, ensuring the container is completely drained. Carefully mix the aggregate with the curing agent using a trowel until a smooth mortar is obtained, this will take several minutes. The more thorough the mixing, the 'wetter', smoother and more manageable the mix becomes. Alternatively, you can knead the mixture by hand, but you must wear suitable gloves. It is important to mix thoroughly until you achieve a consistent color.

POT LIFE

Thirty minutes to one hour depending on the temperature. If Concrex is used past its working life, trowelling will become difficult and adhesion will be reduced.

APPLICATION

Place mixed material into the area to be repaired and spread out and finish with a steel trowel. To reduce 'drag' on the trowel, wet the blade with mineral spirits. This will aid getting a smooth finish to the Concrex. Concrex is normally applied in thicknesses of ¼-2 inches, but repairs can be feather-edged for a neat finish, as long as the majority of the repair is at least a ¼ inch thick. For repairs deeper than 2 inches, apply in separate layers (allow 6-8 hours between layers for curing) or use Concrex Deep Fill (which can be applied ½-4 inches thick in one layer). There is no need to reapply Tack Coat if building up in layers.

COVERAGE

See table below.

CURING TIME

See table below.

CLEAN UP

Tools used for mixing and applying Concrex should be wiped clean with mineral spirits before it cures.

PHYSICAL PROPERTIES

PRODUCT	ORIGINAL	RAPID SET	SUB ZERO	DEEP FILL
VOLATILE ORGANIC COMPOUNDS	<50 g/l	<50 g/l	<50 g/l	<50 g/l
PRACTICAL COVERAGE	12 sq. ft. per 20 lb kit at ¼" thick	12 sq. ft. per 20 lb kit at ¼" thick	10 sq. ft. per 22 lb kit at ¼" thick	5 sq. ft. per 50 lb kit at 1" thick DEPTH: apply from 1/2" to 4" thick per layer
CURING TIME	5-6 hours at 70°F; Curing will be very slow or even arrested by temperatures at 50°F and below	2-3 hours at 70°F; 4-6 hours at 50°F	3-5 hours at 60°F; 12-16 hours at 32°F; 48 hours at -4°F	1-2 hours at 70°F
POT LIFE	30 minutes to 1 hour depending on the temperature	30 minutes to 1 hour depending on the temperature	30 minutes to 1 hour depending on the temperature	30 minutes to 1 hour depending on the temperature
STORAGE	If stored for long periods the granular resinous material should be thoroughly mixed before adding the curing agent. Concrex Original, Tinted, Rapid Set and Deep Fill should be stored at an ambient temperature above 50°F for approximately 8 hours prior to use. Concrex Cold Set should be stored at an ambient temperature above 10°F for approximately 8 hours prior to use.			
SHELF LIFE	2 years	2 years	2 years	2 years
FLASHPOINT	>200°F (94°C)	>200°F (94°C)	>200°F (94°C)	>200°F (94°C)
WARNING	FOR INDUSTRIAL AND COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. REFER TO SAFETY DATA SHEET (SDS) AND LABEL FOR ADDITIONAL SAFETY INFORMATION.			
CONCREX IS FAR STRONGER THAN CONCRETE. COMPARISON OVER 28 DAYS	TENSILE STRENGTH	Concrex 2234 psi	Concrete 493 psi	
	FLEXURAL STRENGTH	Concrex 8108 psi	Concrete 1001 psi	
	COMPRESSIVE STRENGTH	Concrex 8006 psi	Concrete 4322 psi	