KALMATRON® Corporation

Resurfacing OF PARKING LOT Concrete Deck by PATCHCRETE

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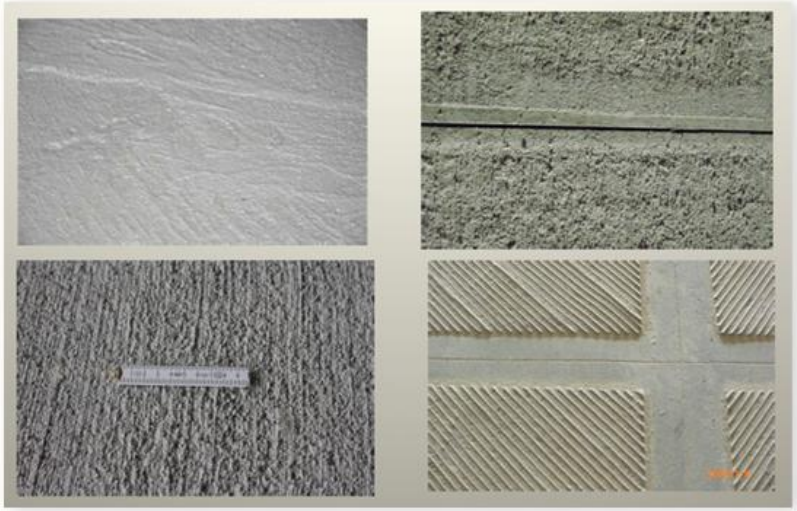
PATCHCRETE

PATCHCRETE is a pre-bagged Cementitious Resurfacing & Coating Mix with high viscosity. It is a strong and durable overlay used for the restoration of deteriorated asphalt, concrete, metal, masonry, ceramic and brick surfaces, with layer thickness ranging from 1/3" to 1 ¼". Applied with a roller, screed with vibrator or with a brush. Polishing after placement is an option as an enforcing treatment. PATCHCRETE has 2-3 times less shrinkage, no shrinkage cracks, and provides waterproofing, increased durability, density and freeze-thaw cycle resistance. Impermeable to crude oil; stops and prevents rebar corrosion.



EXAMPLES OF SURFACE FINISHES

APPLICATIONS

Recommended for use in:

As a repair layer or as a new installation for floors, pavements, driveways, loading docks and other trafficable surfaces.
As a relining coating for ceramic or metal pipes
Production of liquid impermeable concrete, including crude oil;
Corrosion resistant precast concrete;
Abrasion and salt resistant trafficable concrete;
Non-shrinking concrete for flatworks;
Waterproofing.

TECHNICAL DATA

Appearance: Light Grey to Grey powder
Density: 2265 Kg/m3 or 145 LB/CF
Specific gravity: 2.16
pH: 9 -11.

50 lb. bag

FEATURES AND BENEFITS

No curing is needed
No shrinkage cracks
No surface preparation or priming is needed - just wash away any loose materials and make sure the surface is soaked/damp prior to application.
Early strength gain on the 1-2 day. No efflorescence, flaking or sliding.
Increased compressive strength, up to 35%
Shrinkage is 2-3 times lower. No bleed water.
No curing is needed
100% water impermeability at concrete layer thickness of ¾"
Strong adhesion to any porous material and metal
Can be applied in ambient temperature range from -4°F to 104°F
High resistance to chemical and climatic corrosion
High freeze-thaw resistance

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DIRECTIONS FOR USE/INSTRUCTIONS

1. Batch must be no smaller than 50 Lbs. (22.7 Kg).
2. For small batches (50 lbs) use a drill mixer. Add 0.7 Gallons or 90 OZ [5.87 Lbs] of water per every loaded bag of PATCHCRETE.
3. Mix for 5 minutes.
4. The batch will look stiff, but do not add more water.
5. Distribute the layer by screed with vibrator, screed, brush or gauged roller.
6. Hardening time is 4 hours in normal conditions.
7. Finishing: for a smooth surface, polish with a wet trowel (dip it in water), but don't spray water directly onto the layer.
8. After application, do not provide curing with water and do not apply any curing compounds. Do not spray water onto the fresh PATCHCRETE surface!

50 LB BAG OF PATCHCRETE, 90 OZ OF WATER, AND 0.6 LBS BLACK IRON OXIDE PIGMENT

PACKAGING

PATCHCRETE is packaged in 50 lb plastic bags.

SHELF LIFE

12 months from the date of manufacture. Store the product in closed bags in a dry, well-ventilated area.

PRECAUTIONS

Do not add extra water to the batch.
Do not cure.
Do not add any other chemicals or supplementary materials to PATCHCRETE. Fibers and iron oxide based pigments are fine.
PATCHCRETE is non-hazardous, non-flammable and non-explosive for application, transportation and storage.
Consult the MSDS before use.

MIX 50 LB PATCHCRETE WITH 90 OZ WATER FOR 5-7 MINUTES UNTIL THE BATCH IS "CREAMY" DO NOT ADD MORE WATER!

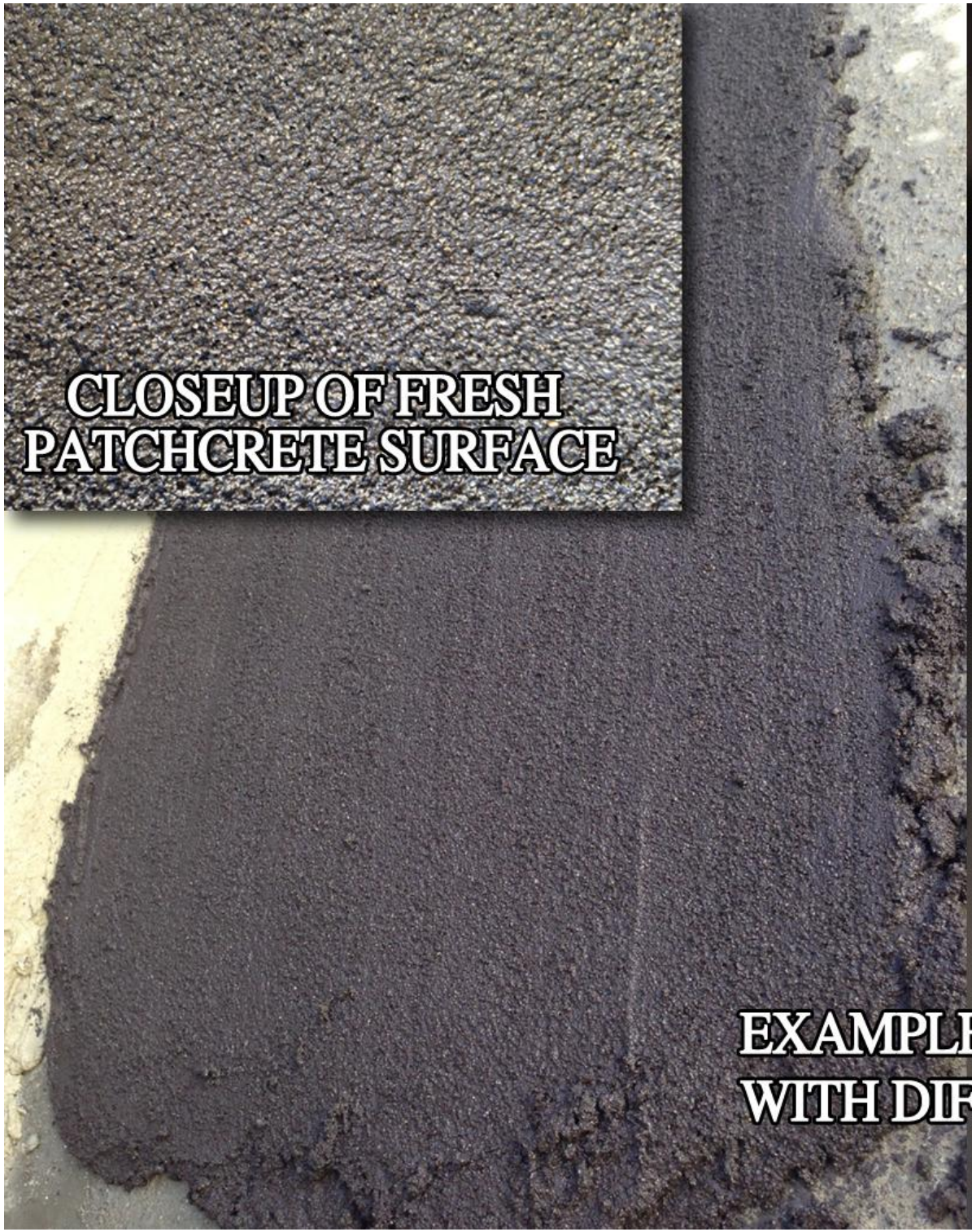
RELATED DOCUMENTS

Material Safety Data Sheet.

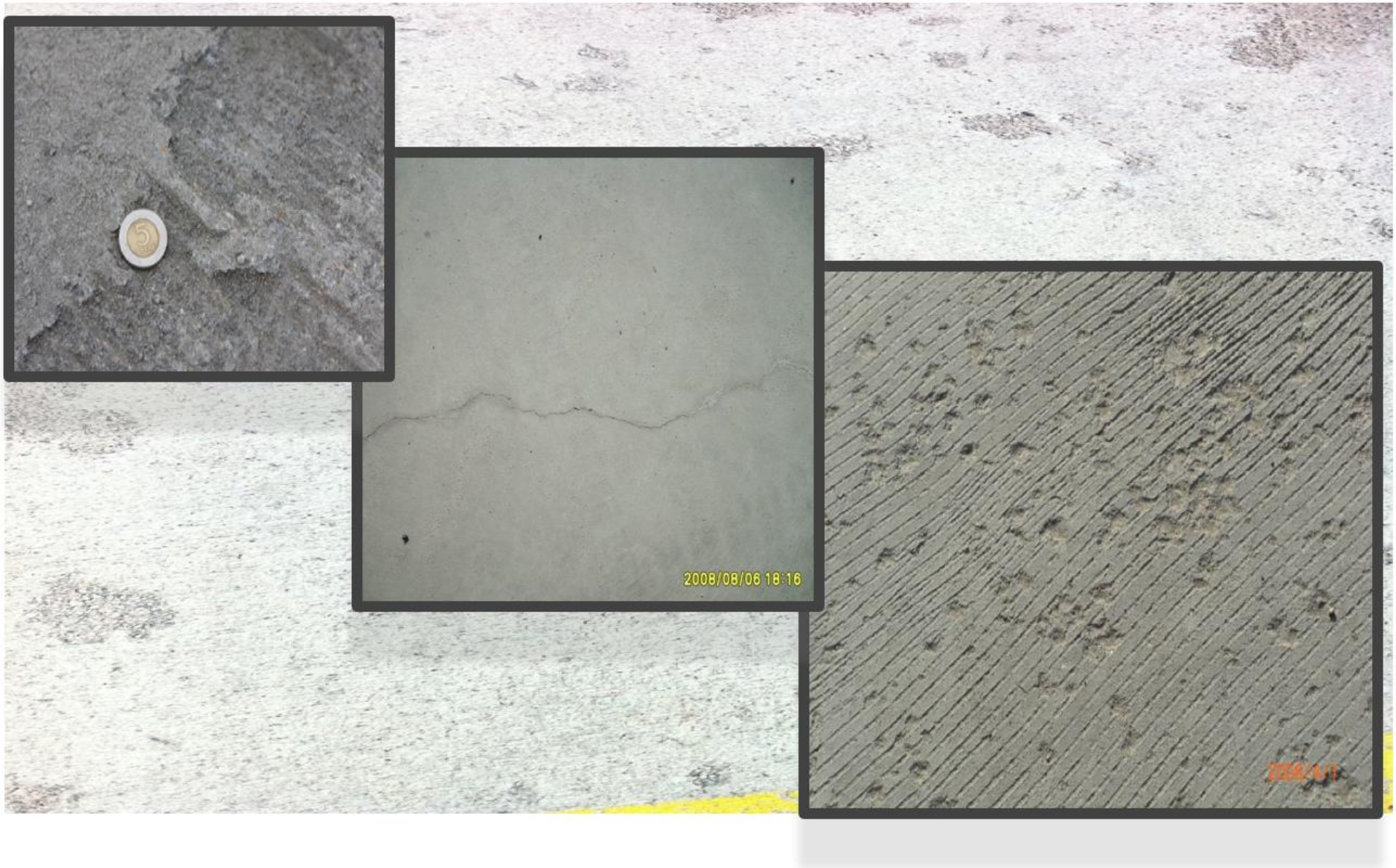
SAFETY

Operation with PATCHCRETE is similar to cement mixing jobs, Always wear an approved particle respirator and rubber gloves. Avoid inhalation of the dry product or direct skin and eye contact. Caustic when mixed with water. In case PATCHCRETE is inhaled, swallowed or gets into contact with the skin or eyes, rinse and wash abundantly with water. Refer to the MSDS for additional health and safety information.

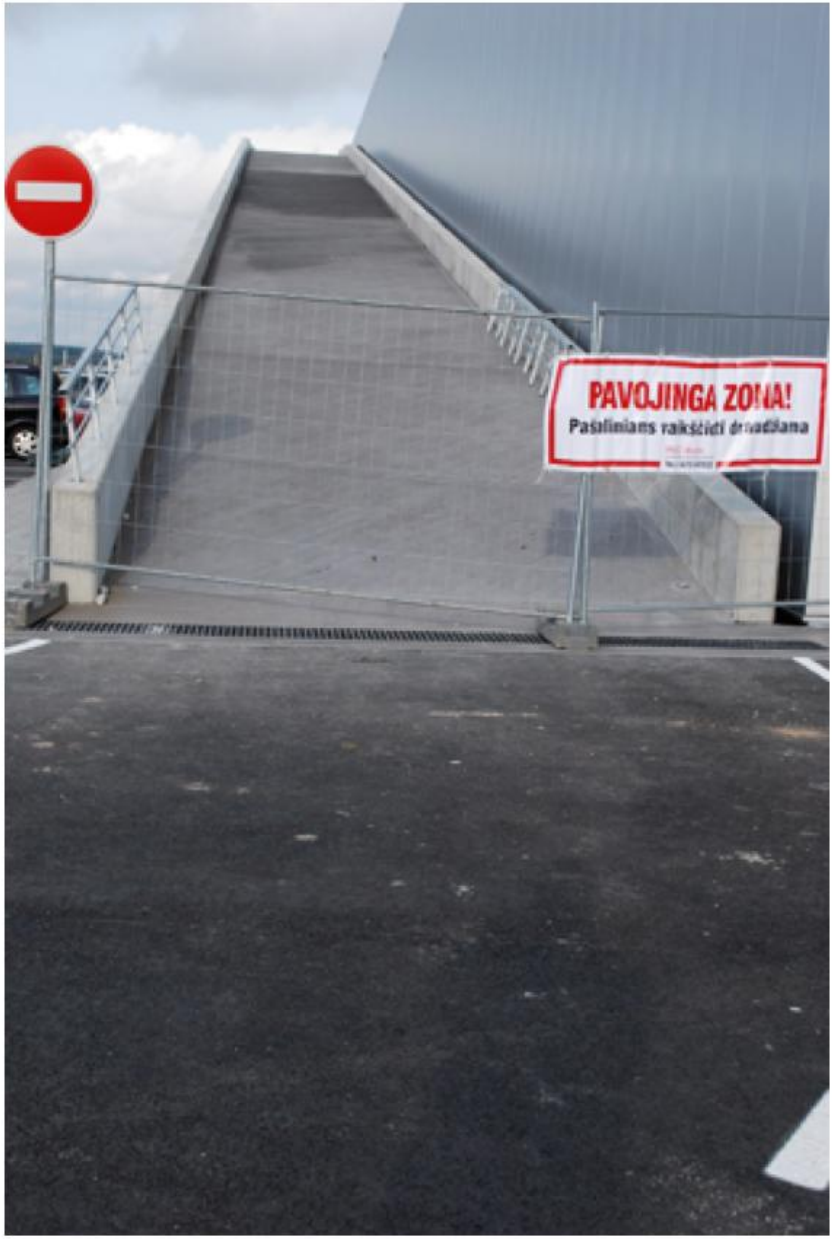
Made in the U.S.A.


CLOSEUP OF FRESH
PATCHCRETE SURFACE

EXAMPLES OF PATCHCRETE
WITH DIFFERENT PIGMENTS



Blistering and delamination wear are the most common type of defects in concrete surfaces exposed to freeze thaw, high traffic, and ionic and primordial radiation attacks, especially in concrete decks and ramps, parking lots, airports, and bridges.



This concrete deck and parking lot ramp have lost their inter-repair durability after only 2 years. Requested thickness of the repair coat is between 2 mm - 15 mm. Repair overlay was made with PATCHCRETE.

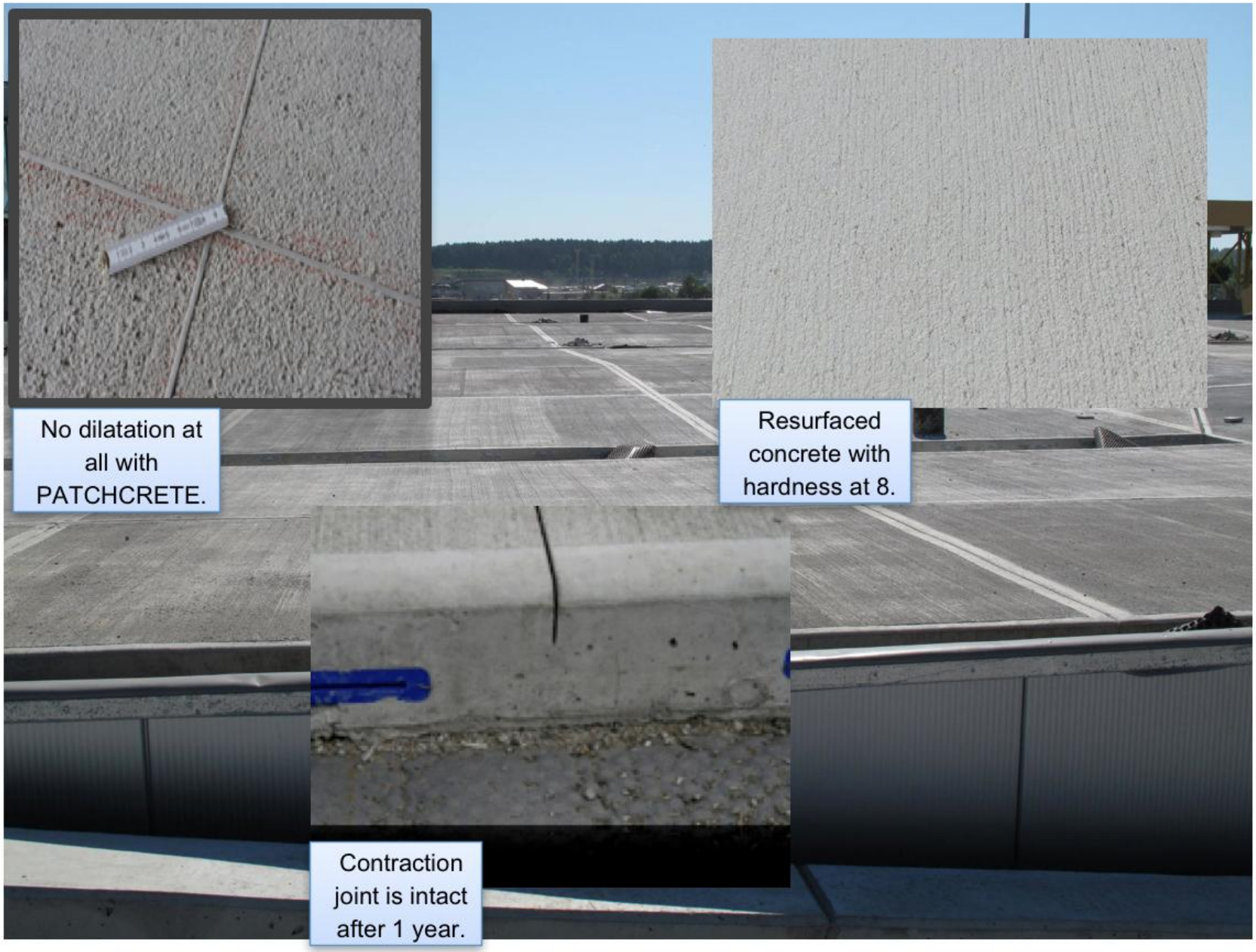
PATCHCRETE mix preparation (upper left).

(Left) The damaged concrete resurfaced with an ultra thin layer of PATCHCRETE, at just ¾" (18 mm).

PATCHCRETE is very efficient for the quick repair of pavements, driveways, garage floors and industrial structures such as airports, seaports, storage facilities, roads and bridges.

Applied by shotcrete or gunite, PATCHCRETE is also suitable for water and sewer supply systems, oil wells and storage tanks.

PATCHCRETE with W/C = 0.44 is unloaded from the mixer through a hose ⦸ 6” (15 cm) and length of 30 m or 100’. The batch pumps easily, resulting in twice shorter construction times. No curing or isolation with plastic film is needed.



Total area of parking lot resurfaced by PATCHCRETE is 20,000 m^2. Parking lot is fully repaired, with restored functionality of the surfaces textures, water impermeability and corrosion resistance.

Different techniques of PATCHCRETE application with layer thickness ranging from thinner than (20 mm) ¾” and as thick as (50 mm) 2”.

Different types of PATHCRETE textures for resurfacing asphalt/concrete.

Different PATCHCRETE surface textures