



Concrete Flooring Repair Test

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Oil & Grease, caustic soda, cleaning agents' effect on concrete flooring

Exposed aggregates due to the deterioration of cement screed.



Screed deterioration, e.g. cracking.



Food Product Safety Impact

**Pooling of water – a 100%
bacteria & virus sanctuary**



Screed damage



Solution

Application of a Low-Carbon Fast Self
Leveling Mortar & Long Life for
Concrete

Surface Preparation

Cup Brass tool

Chipping off dirt & grime



Utilization of a mechanical steel brush to facilitate surface cleaning



Chiseling the flooring is very labor intensive so we instead utilized mechanical tools to quickly prepare the surface taking out the loose concrete, damage screed, oil & grease, etc.

Surface Drying

Drying w/ heat gun was needed since the surface was soaked w/ water

Heat gun



Drying the crevices w/ acetylene to get rid of water, oil & grease



Solvent-free Concrete Primer Application (wet on wet application)



VOC-free Self Leveling Cement Preparation

Mixing tool



**Weighing of cement for accurate
water ratio of 16 to 18%.**



Application of VOC-free Self Leveling Cement

**Application of pure (w/o sand)
Fast Self Leveling Mortar**

**Application of Long Life for concrete
(wet on wet application)**



Application of Hydrophobic Long Life for Concrete

Fast waterproofing of cement surfaces for non pressure water



Makes surface harder, chemically more resistant, scratch resistant and capable of coping with heavy loads



5 Days after

After being subjected to traffic

**Already contaminated w/ oil & grease,
dirt, grime, raw material ingredients, etc.**



Cleaning

w/ rags & grease remover mixed
w/ water

After a few strokes



Dirt, grime, oils, water, etc...no longer adhere to the repaired concrete

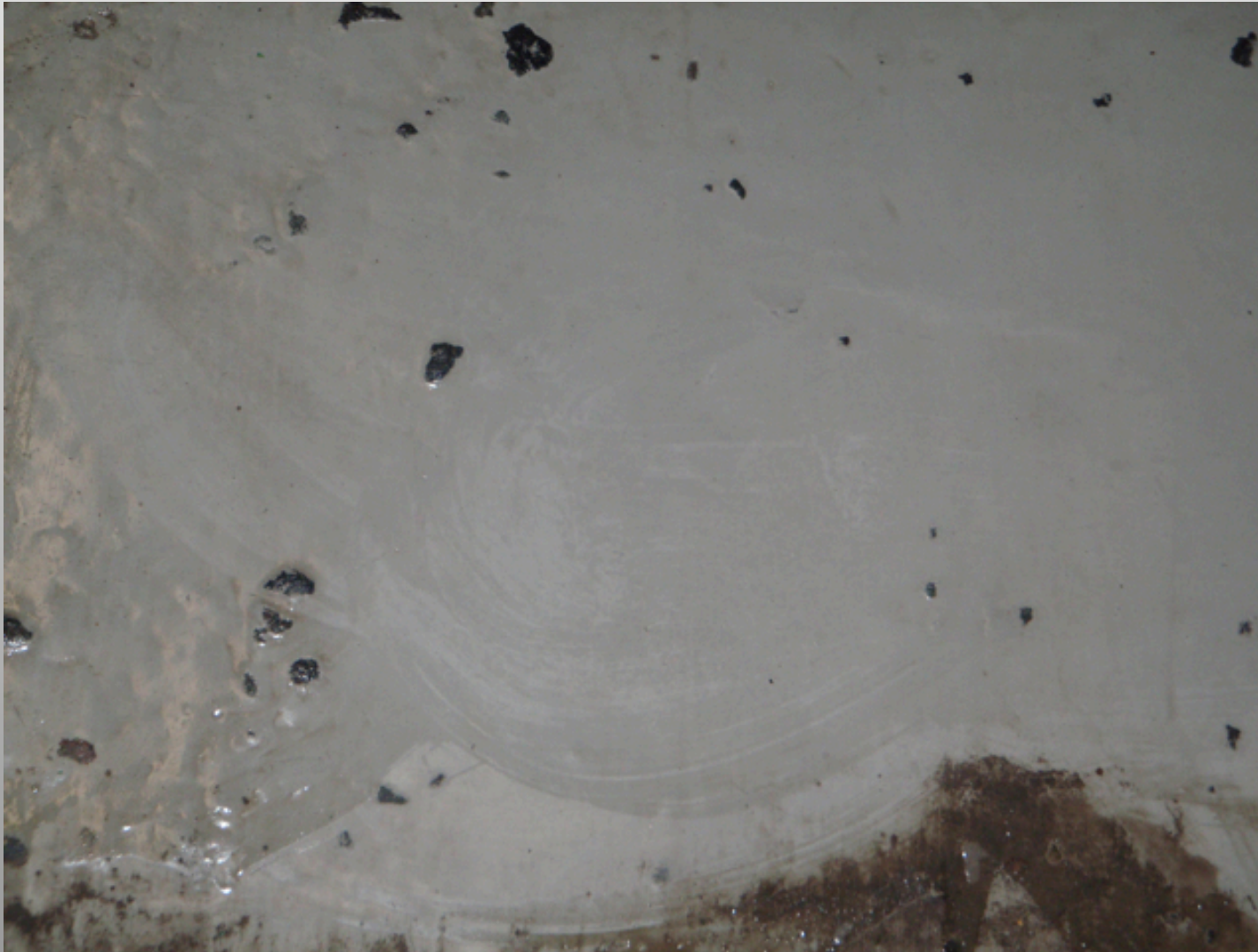
The floor can now be easily cleaned w/ a floor mop

Back to normal



Floor cleaning can now be done every shift so as to have a bacteria & virus free workplace.

Since the fast self leveling mortar was applied w/o sand, the protruding aggregates became visible after subjected to traffic.
Thicker application w/ sand can be done in the future.



Some Recommendations

Corners where walls meet the floors will be applied w/ a moldable grout for easy cleaning & bacteria free state “coving”. This is a HACCP (hazard analysis critical control points) strategy.



Flooring w/ equipment

It is recommended that flooring w/ equipment should be waterproof & acid proof by applying Total Protective Coating



Thank You!