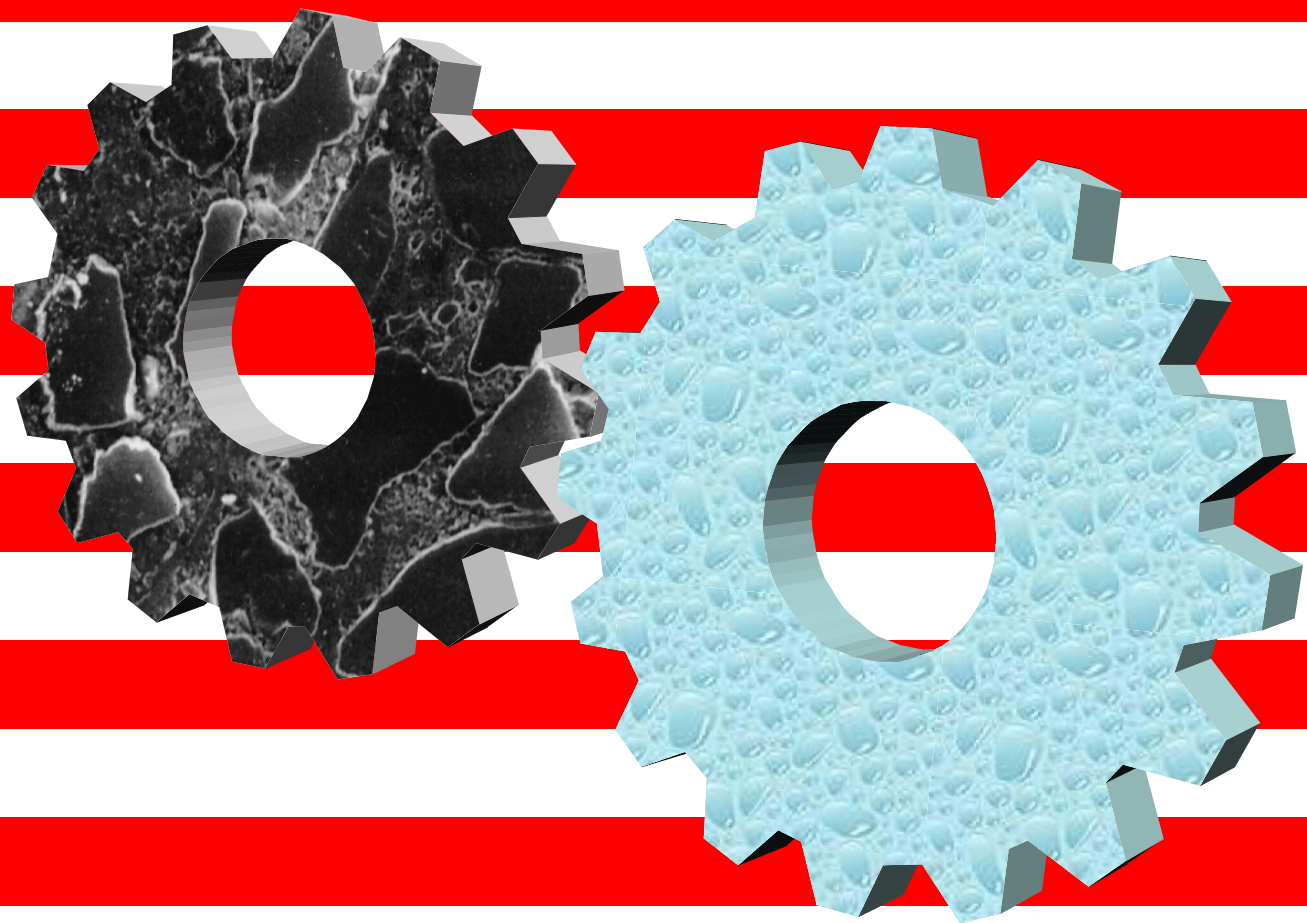
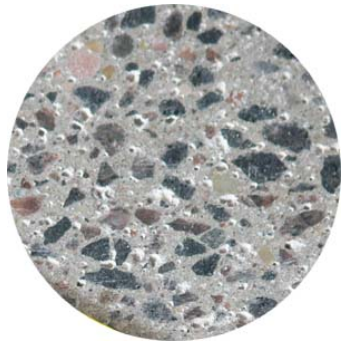
K A L M A T R O N® KF-A: LUMINOUS CONCRETE FLOOR



Two Gears Give the Torque !

LIGHT REFLECTION FROM CONCRETE FLOOR



The brightness of a concrete floor depends on natural porosity, uniformity of cement particles, and the aggregates' bond-force with cement rock. Look at the picture of a core cylinder slice at upper right, where all holes have the same diameter. It means that coarse sand particles were pulled out of the concrete surface during polishing. No smaller or bigger particles were touched at all, but just the coarse sand and some debris of smashed pieces of aggregates.

It is an illustration of weak bond-force between aggregates and cement rock. This floor needed to be polished with active fillers such wax, polymers, etc. to fill up those voids, i.e. to get smaller surface of reflection.

It also helps to hide non-uniform cement particles, which dims light reflection significantly. Concrete floors become dimmer after people or machine traffic, causing lifting of cement particles from the floor surface. That's why frequent maintenance is required to keep concrete floors looking shinier.

KALMATRON® KF-A added to the concrete mix increases the volume of cementitious paste and reduces porosity. Bigger surface of cementitious paste provides stronger bond-force with aggregates, where reduction of mechanical cavitations and cement particles uniformity vividly and effectively high.

In the picture at right are three core cylinder slices without exposed cement particles and insignificant cavitations. To a client the reason of it was using old and damaged polishing discs, but even though the concrete floor surface become stably shiny without active fillers, toppings, dry shakes, and curing.

Below are the photo pictures as they were sent to us by our distributors. The high economical effectiveness of the KALMATRON® KF-A application eliminates traditional isolations, at 5 to 8 other admixtures, fillers, fibers, and curing, which for floor manufacturers is peace of mind without calls back.

WAREHOUSE FLOOR shown before polishing. Not one shrinkage crack was found after inspection. For the first time in their practice workers started to polish the floor without preliminary patching. Reflection of natural light from bare concrete is already there.

WAREHOUSE FLOOR reflects natural light after final polishing by regular discs.

Natural light gives moderate and solid reflection off the concrete surface.

Natural light distributed on the floor surface from window panel to the back walls shows spotless field of stable color.

Artificial light of pointed bulbs is scattered by the angled reflections with stable brightness.

Artificial light of luminescent bulbs reflected by floor made with KALMATRON® KF-A only.

It is not a pond, just a tennis court surface after rain. The lack of drainage keeps water until it dries naturally. Like a customer said: "It is too waterproofed!"