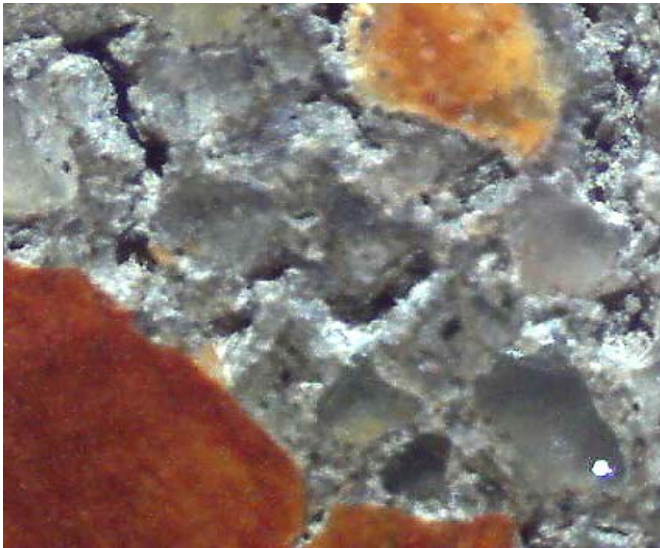


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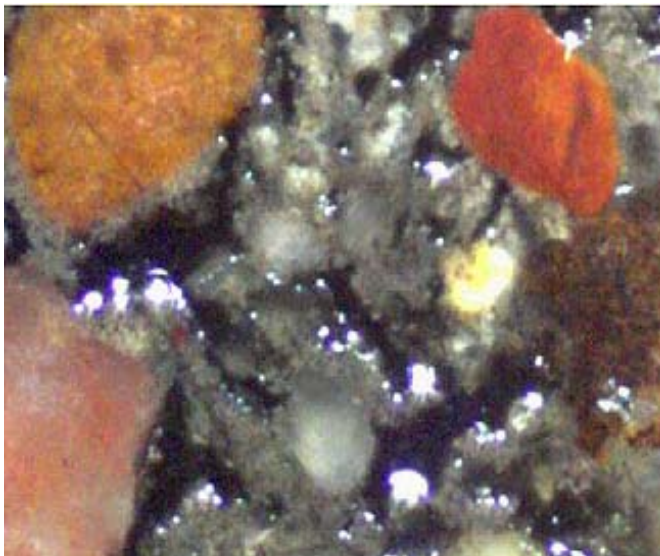
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BENEFITS OF SEALING POLISHED CONCRETE WITH SANI-SEAL™ 370 EPOXY RESIN



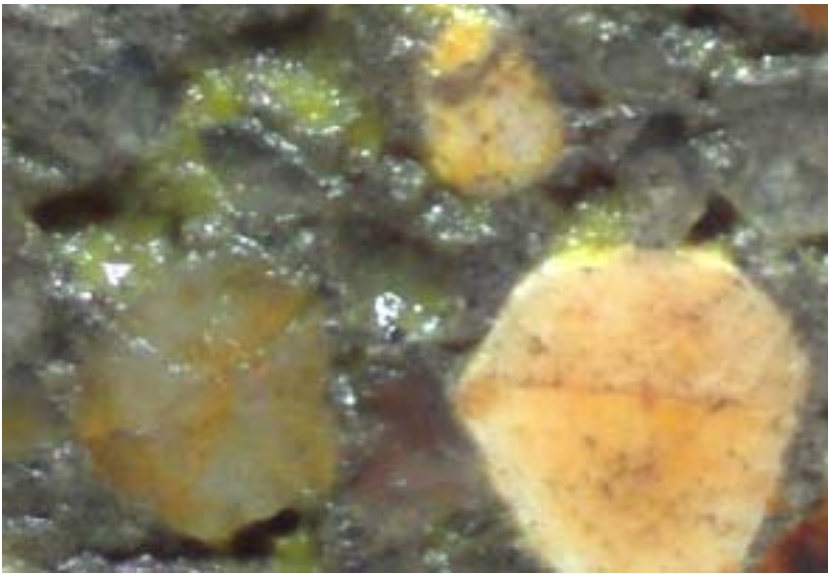
Polished concrete is attractive, durable and easily maintained however it retains the porous character of raw concrete. Professional polishing brings the sand and aggregate particles to a high luster but has no significant effect on the Portland paste which binds the mixture. The photomicrograph opposite taken at 60X magnification clearly shows the highly polished aggregate particles on the surface but also reveals the open, porous nature of the Portland binder between them. This network of voids and porosity provides an ideal breeding place for bacteria living on spilled foodstuffs.

TFT has developed a high performance, solvent-free sealer especially for polished concrete which offers several important benefits. This penetrates the surface to fill voids and encapsulate the entire surface with a tough, high-strength epoxy resistant to all common foodstuffs and cleaning agents.



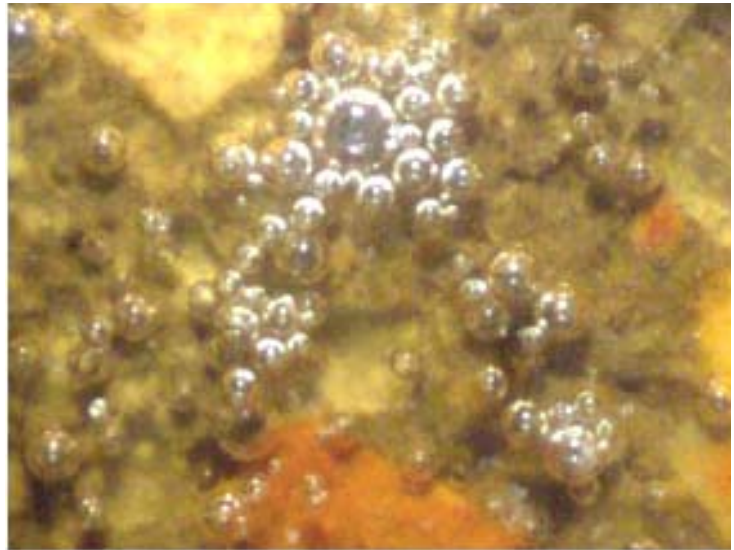
The epoxy sealer shown in the photomicrograph opposite has been tinted black to highlight it. All colors are possible from black to white, a light gray color offsets the darkening seen when dry concrete is moistened.

The application process of applying the sealer then leaving it to penetrate for about 20 minutes before simply wiping off the excess ensures that the sealer surface lies just beneath the polished aggregate. This retains the aggregate as the primary wear surface for a long, maintenance-free life with the underlying epoxy resin reinforcing and cushioning it against impact and chemical attack.

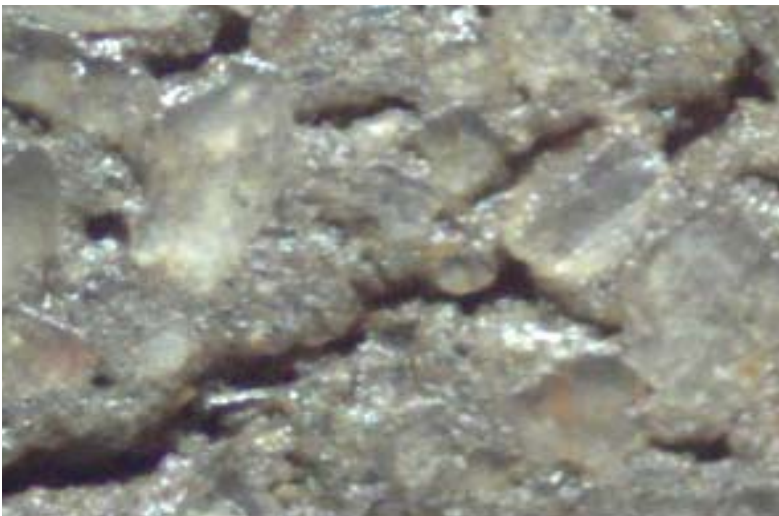


Laboratory testing with various foodstuffs on unsealed, polished concrete show that it is impossible to properly remove spills from the porous surface of unsealed polished concrete by vigorous wiping. Examination of the photomicrograph at left clearly shows residues of mustard which have been driven into the pores of the concrete by wiping – these residues will eventually harbor and feed bacteria resulting in a very unsanitary surface.

Contact with vinegar can be even more damaging since the vinegar acids attack and dissolve the alkaline Portland paste. The photomicrograph opposite shows evolution of carbon dioxide from freshly applied balsamic vinegar as it dissolves the Portland paste.



The accompanying photomicrograph below shows the effect of a 15-minute exposure to balsamic vinegar – note the widened and deepened “chasms” between the aggregate which have weakened the surface and provided additional volume in which bacteria may thrive on spilled foodstuffs.



Exposure to balsamic vinegar, ketchup and mustard also resulted in an unattractive change in appearance from staining, gloss reduction and residues left in the pores of the concrete.

Scrubbing with a moist cloth was ineffective in either removing these residues or restoring the initial appearance of the concrete. In sharp contrast the sealed concrete surface cleaned was easily and thoroughly cleaned with a wet rag.

SANI-SEAL™ 370 improves polished concrete surfaces in several ways:

- a) The concrete surface is toughened against mechanical damage from falling tools and other impacts.
- b) The surface is thoroughly sealed against penetration by foodstuffs, oils, grease and other contamination. Proper cleaning of counter and floor surfaces is quicker, easier and much more efficient than before sealing.
- c) Dry coefficient of friction appears to be unchanged since the wearing surface of polished aggregate remains unchanged – it probable however that the wet coefficient of friction will be reduced since surface water is no longer absorbed into the concrete.

Installation is simple following these steps:

Step 1.0 Surface Preparation

- 1.1 The surface must be clean and dry before proceeding. Remove dust by vacuuming or blowing with clean air.
- 1.2 Concrete temperature should be at least 55°F, preferably 70°F+
- 1.3 Absorption is better when warm surfaces are cooling rather than when cool surfaces are warming.

Step 2.0 SANI-SEAL 370 Application

- 2.1 Thoroughly mix the SANI-SEAL 370 components in their supplied ratios. Ensure no unmixed components remain, these “hotspots” of base resin or curing agent *will never cure*.
- 2.2 Pour the mixed resins over the concrete surface at a spreading rate of about 150 sq.ft./gallon then squeegee and roll as necessary so that a shiny surface of resin remains. Allow this resin to stay in place for about 20 minutes, Squeegeeing or rolling as necessary to maintain the shiny resin surface.
- 2.3 After about 20 minutes squeegee the excess resin off while it is still liquid then buff off the residues using rags. Do not use solvent to assist this process.
- 2.4 Allow to cure overnight before placing in service – “full cure” takes about four days at 77°F however the sealer will be hard and tough overnight.

Step 3.0 Final Preparation

- 3.1 If the removal step using rags was effective and the floor appears attractive and ready for use then no other steps are necessary.
- 3.2 If residues of the SANI-SEAL 370 remain after Step 2.3 use a commercial buffer or aggressive floor cleaner to remove them – the SANI-SEAL 370 will not be damaged by this process.

SAFETY NOTES:

- a) Avoid skin and eye contact! Read and understand the MSDS before use. Wear long sleeved shirts and goggles if skin and/or eye contact is possible.
- b) Remove from skin before curing using “GOJO” or similar cleansers; avoid the use of solvents on skin since they tend to drive harmful materials through the skin into the bloodstream.
- c) SANI-SEAL 370 does not contain solvents. If solvents are present on the jobsite for tool cleaning or other uses observe safe practices around sources of ignition and ensure adequate ventilation.