CURE-2-GO: ANQUAMINE® 728 CURING AGENT

NEW EPOXY FLOOR COATINGS WITH UNRIVALLED FAST CURE AND IMPROVED AESTHETICS

"WHAT PROBLEMS KEEP YOU UP AT NIGHT?"

A simple question to customers that displayed unmet needs in today's industry floor coatings: – *"I need to reduce my floor system cost … I want coatings with improved robustness under adverse cure condition … And also, I need good aesthetics and an epoxy system that meets stringent VOC/emission requirements".* In the application of epoxy industry floors, a maximum of four hours is acceptable to wait in between applying the primer and the topcoat, irrespective of cure conditions. Customers confirmed: *"Anything longer than four hours and we will [have to] send the application team home, only to come back the next day again."* Challenging targets. Especially given the fact that fast-cure epoxy systems require 8-12 hours at low temperature cure (10 °C / 50 °F) before receiving a second coat and generally these systems suffer from carbamation.

Evonik Crosslinkers answers these unmet needs with the commercialization of Anquamine® 728. The new product is a waterborne amine curing agent that offers fast cure and good aesthetics, for use in epoxy primers and topcoats on concrete substrates. Combined with Ancarez® AR-555 solid epoxy resin dispersion, it yields a primer with recoat times of less than four hours at 10 °C / 50 °F and excellent adhesion to damp concrete. Topcoats are best formulated with diluted liquid epoxy resins for excellent aesthetics and good compatibility with pigment pastes. Anquamine® 728 based coatings have a low tendency to carbamation and waterspotting and can be applied up to 500 g/m² / 20 mils wet film thickness. Two coats per day and next day back-in-service enables applicators to improve productivity and save cost/m². The end-user receives a floor system that comes with excellent aesthetics and has potential to meet stringent emission requirements. That's Cure-2-Go with Anquamine® 728!

Figure 1
Recoat time of epoxy coatings to damp concrete at low temperature cure condition. Comparison of Anquamine® 728 (Anq 728) versus a fast-cure mannich base epoxy system.

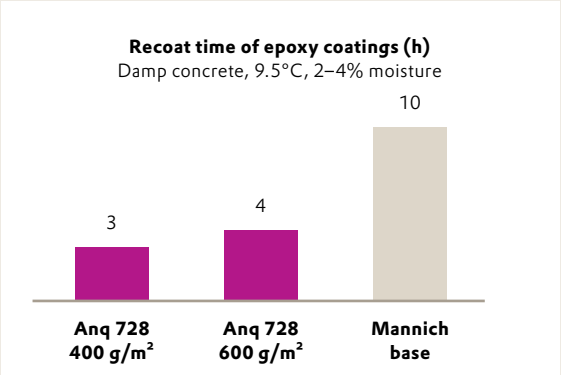
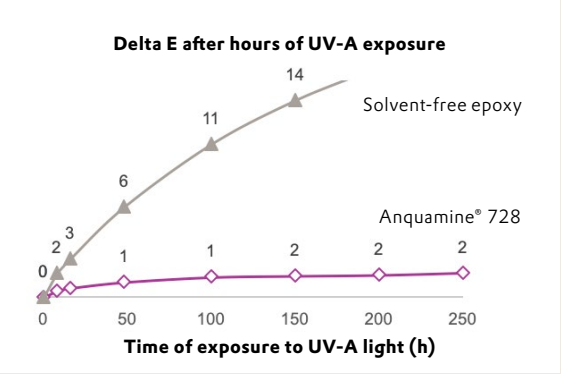


Figure 2
Comparison of Delta-E as a function of hours of UV-A exposure: White epoxy coating based on Anquamine® 728 versus an equivalent coating based on solvent-free epoxy technology.



CONTACT
Robert Rasing
robert.rasing@evonik.com