

Challenges

At a large Asian automotive assembly plant in North America, the epoxy they were using on their floors had caused their safety record to be adversely affected, and had created tension and stress for both workers and Management. The painted lines and signs needed to define safe walk areas would not stay on the floor.

Management was dissatisfied with how often they needed to repaint the line striping, cross hatching and stops signs. In addition, the floor of the plant's car display area would yellow due to the epoxy's contact with tires.

Quaker wanted to show that by using RapidShield™ the plant would gain the following benefits over conventional floor paints:

- Instant curing
- Improved wear and durability
- Excellent chemical resistance
- One-component formulation
- Low or no VOCs and low odor
- Reduced floor maintenance costs
- Reduced application downtime
- Increased safety
- Minimization of any dirt/contaminates entering the surface

References Use of UV Technology

- Laminate flooring
- Plastic and other composite automotive parts
- CDs, DVDs, and other media
- Wood Furniture
- Electronic circuit boards
- Teeth and women's nails

Providing Solutions

RapidShield™ was applied and cured in a fraction of the time it took to apply the epoxy, due to the one coat application and instant curing (2 hours vs. 2 days). The no VOC formulation meant it could be applied during normal operation hours resulting in:

- Reduction in labor costs due to product being applied during normal operation hours instead of off-shifts and weekends.
- Longer lasting and clearer lines leading to improved worker attention and use of designated walkways.
- Improved durability of stop signs painted at intersections which have improved safety by lasting 3 – 4 times longer. Their application time has been reduced by the use of vinyl templates provided by Quaker.
- Improved safety for plant personnel due to a fine non-skid additive.
- A floor and display area that is much easier to keep clean.

The use of Quaker's RapidShield™ colored and clear floor coatings also resulted in the following:

- Improved employee morale regarding management's paying more attention to safety.
- An improvement in the sign painter's morale, knowing their work will last longer and that co-workers appreciate what they do.



Product and Process Expertise

Quaker's RapidShield™ floor coating products are unique in the industry. These revolutionary products utilize state of the art UV light technology in order to dry nearly instantaneously, providing a surface with superior gloss, hardness and chemical resistance. Special photo initiators present in the floor coating cause it to harden so rapidly the "wet look" of the coating is locked in place, and allow the floor to accept industrial traffic within mere seconds of being exposed to the special UV-light system. During the hardening the coating "cross links" forming a 3-dimensional polymer with far greater hardness and superior chemical resistance to conventional coatings that require hours or days to fully harden.



RapidShield™ Safety Entrance



RapidShield™ Quality Inspection Area

Application and Equipment Information

RapidShield™ Floor Coating

Floor Area:	30,000 ft ² floor
Substrate:	Old power floated uncoated concrete with a few areas requiring removal of epoxy
Surface Preparation:	Grinded
Products:	RapidShield™ QV 0007 Clear RapidShield™ QV 0604 Safety Yellow RapidShield™ QV 0501 Safety Green
Equipment:	Quaker 220v single-phase UV Curing Lamp with QV Technology
Applicator:	In conjunction with local CFC (Certified Flooring Contractor)

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