Challenges

A large American defense manufacturing plant was dissatisfied with the traditional epoxy coating they had been using because:

- 24/7 operation of the plant meant the floors could only be done in small sections and would involve down time for employees.
- Fine dirt and dust adhering to the floors made the plant look dark, causing low employee morale and quality concerns.
- The floors were hard to keep clean and engine parts produced at the plant were being contaminated with the dust.
- Line striping would not adhere well to the epoxy finish, causing safety hazards.

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 odour
- 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

The manufacturer agreed to apply RapidShield™ to its floors in multiple colors, side by side. The instant cure allowed this to be done in 2 hours instead of 2 days, so the plant's production schedule was not compromised.

The use of Quaker's RapidShield™ floor coating also resulted in the following:

- Substantial application and downtime savings
- Floors that are now much easier to clean.
- Reduction in contamination of manufactured parts since floor dust accumulation has been greatly reduced.
- Improved employee morale due to a brighter and safer work environment.

In addition Quaker applied an anti-slip top coat as part of the system and nearly eliminated all slip and skid hazards. The plant has asked for additional RapidShield™ work to be quoted.

Environmentally Friendly • Conforms to LEED Guidelines •

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™ Isle Ways and Stop Sign

RapidShield™ Isle Ways

Application and Equipment Information

RapidShield™ Floor Coating

Floor Area:	10,000 m^2
Substrate:	Old power floated uncoated concrete
Surface Preparation:	Grinded
Products:	RapidShield™ 0007 Clear RapidShield™ 0604 Safety Yellow RapidShield™ 0902 Safety Red RapidShield™ 0304 Light Gray RapidShield™ 0202 White
Equipment:	Quaker 3-phase UV-unit
Applicator:	In conjunction with local CFC (Certified Flooring Contractor)
Operation:	RapidShield™ Floor Coating (Colours, clear and anti-slip)