Challenges

A leading global braking manufacturer for automotive and industrial equipment was dissatisfied with the following aspects of its flooring finish:

- Very hard to clean
- Staining from grinding coolants
- Slippery from brake dust
- Long turnaround time and process for polishing
- Dull finish made the plant dark
- Lowering of employee morale

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. Because this was a 24/7 operation, RapidShield™ was able to be applied and cured without shutting down production or forklift traffic. The use of Quaker's RapidShield™ floor coating also resulted in the following:

- Substantial application and downtime savings
- Improved employee morale
- Elimination of staining from coolant and oil
- Elimination of the need to increase overhead lighting

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 completed nine projects to date, workings toward completion of the whole plant floor with RapidShield™.

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.

Before RapidShield™

After RapidShield™

Application and Equipment Information

RapidShield™ Floor Coating

Floor Area:	Up to 6,000 m^2
Substrate:	Old power floated uncoated concrete with some areas previously polished
Surface Preparation:	Shot blast clean or grind
Products:	RapidShield™ 0007 Clear RapidShield™ 0604 Safety Yellow RapidShield™ 0902 Safety Red RapidShield™ 0102 Black Anti Slip
Equipment:	Quaker 3-phase UV-unit
Applicator:	In conjunction with local CFC (Certified Flooring Contractor)
Specific Operation:	RapidShield™ Floor coating (clear with lines stripes)