Challenges

As part of an ongoing health & safety improvement programme, a metal packaging manufacturer in the UK decided to apply large traffic safety signs to key areas of its facility. They considered a new safety traffic marking system by applying eight large traffic safety signs to key areas of the factory floor: five x 4 metre STOP signs and three x Zebra crossings.

The plant runs 24/7 - 365 days a year and with such an around-the-clock operation, the company could not afford to disrupt its normal working patterns.

The issues were:

- The areas concerned were in constant use and could not be closed for long periods to allow for conventional floor coatings to be applied.
- No fumes, odour or solvents were specified as part of their environmental impact policy.
- A light anti-skid was specified to reduce slipping accidents.
- To be able to clean and maintain any new coating.

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 use of RapidShield™ floor coating resulted in:

- High visability safety signs increased awareness.
- Continued working whilst floor coating was being applied.
- No odours with in live workshop areas.

For the manufacturing floor areas, reduction in application and curing time allowed the plant to carry on production in a timely schedule and reduced the amount of re-routed traffic.

The requirements of the environmental impact policy were fulfilled. The light anti-slip top coat met the required safety levels, but still allowed for good cleaning. Only positive comments were received from workshop personnel.

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

After

Application and Equipment Information

RapidShield™ Floor Coating

Floor Area:	± 150 m² across five areas
Substrate:	Old concrete with some existing failed coatings
Surface Preparation:	Enclosed blast clean and ground flat
Products:	RapidShield™ 0007 Clear RapidShield™ 0102 Black RapidShield™ 0202 White
Equipment:	Quaker 3-phase UV-unit
Applicator:	In conjunction with local CFC (Certified Flooring Contractor)
Operation:	RapidShield™ Floor coating (Clear and Colours with anti-skid)