



COIL TO CAR™

AUTOMOTIVE COST CONTROL BEGINS WITH QUAKER CHEMICAL'S COMPLETE PROTECTION SYSTEM

Quaker's "Coil to Car" system provides unparalleled chemical protection for automotive mass production. It custom-tailors both products and processes for maximum benefits. Parts are protected by the chemicals that are most effective against stain and corrosion. Stamping, cutting and grinding processes are tuned to provide maximum benefit from the specialized chemicals being used. On-site oversight by Quaker's technical experts insures the most productive interaction of both. It is a "Win-Win" situation, with the potential to trim thousands of dollars, euros or yen from your costs, and add significantly

to your bottom line profit. Let us show you examples of the actual economies "Coil to Car" is achieving at automotive manufacturing plants around the world today. Please call 1.800.523.7010 or visit us at www.quakerchem.com



Innovative Coatings and Effective On-Site Chemical Management Add Value for Automobile Manufacturers



Quaker Chemical Corporation

Coatings used for corrosion protection and cosmetic purposes are an integral part of automobile manufacturing. There are a number of coatings, however, that are applied solely to prevent corrosion and provide lubrication during the manufacturing process, yet never see the light of day in the dealer showroom.

These products are referred to as temporary “surface critical” coatings. They are formulated to protect and to improve the manufacturing process by helping eliminate corrosion on steel prior to stamping, drawing or forming. They also ensure against galling, thinning or splits during the manufacturing process itself. They are “temporary” in that they are easily removed, and do not interfere with blank wash and other downstream manufacturing processes.

An example of an advanced corrosion preventive and process lubricant is FERROCOTE®, a line of products developed by Quaker Chemical Corporation, and applied today at automobile manufacturing plants around the world. FERROCOTE® can be custom formulated to meet the needs of each manufacturer’s brand specific processes and requirements. Whereas the primary function of FERROCOTE® is corrosion protection for the steel under a variety of transit, storage and processing exposures, this coating



Steel Coils and Storage

product has proven to provide enhanced lubrication for the press, as well. Each individualised FERROCOTE® formulation offers protection from atmospheric humidity, fingerprint neutralisation, scratches and water stain. The coating can be optimised for every manufacturing process, with options including oil-based, emulsifiable (i.e. oil diluted with water), wax-based dry film or water-based solution.

Each FERROCOTE® has brand compatibility in a wide array of process types and/or conditions, and with a wide range of cleaners and adhesives used in automobile manufacturing. Characteristics that are typically considered for these applications are: viscosity requirements; lubrication needs; welding and adhesive compatibility;



Automobile Hood Stamping

cleaning efficiency; environmental restrictions; and health and safety requirements.

This product coating line has been approved for use by every major automobile manufacturer in the world

FERROCOTE® is typically applied to ferrous and non-ferrous metals, including metallic-coated types (galvanised, aluminised) at rates of 1.5-2.5 g/m². This product coating line has been approved for

use by every major automobile manufacturer in the world.

Coating innovation does not stop with FERROCOTE® and the manufacturing process. Quaker Chemical has introduced RapidShield™, a new coating utilizing UV-light technology, for concrete floors in manufacturing plants. This floor coating hardens instantly, allowing the coating to be applied without interfering with production processes. During the hardening, RapidShield™ cross-links, forming a 3-dimensional polymer with far greater hardness and chemical resistance than conventional floor coatings that require hours or days to harden. The wet look of the coating is locked in place, allowing the floor to accept industrial traffic within seconds of being exposed to the special UV-light system.

Quaker Chemical has introduced RapidShield™ a new coating utilizing UV-light technology

**COIL TO CAR
- COATING OPTIMISATION**

Innovative coatings are part of the process of controlling and reducing manufacturing costs. Another strategy to improve the processes and to reduce costs is the management of all coatings and chemicals under Quaker Chemical's "Coil to Car" Programme. This programme is a comprehensive philosophy of process management, wherein Quaker's knowledge of the lifecycle of metal from "Coil to Car" is employed to formulate innovative process solutions for the manufacturer that not only optimise the use



Assembled Autobody



RapidShield™ Coating

of the Quaker chemicals, but also the processes in which they are being applied.

The "Coil to Car" Programme is an integrated process perspective, designed to deliver solutions that help reduce manufacturing costs, improve plant health and safety, and to promote superior product performance, with particular focus on surface protection, downstream capability and economies.

Quaker's "Coil to Car" cost control programme is maximised through its Chemical Management Services (CMSsm) programmes. These CMSsm Programmes are already in place in many plants throughout the automobile industry. Under contract with the manufacturers, they provide dedicated on-site Quaker personnel assuming the functions of chemical procurement, monitoring and control. These CMSsm Programmes guarantee process savings through product and process optimisation.

Quaker Chemical has over 350 CMSsm associates working full time in this capacity in automotive plants in North America, Europe, Asia and South America. This focus on chemical usage, and the processes in which they are applied, are areas in which Quaker has a technical advantage in helping the plant derive more profitability from the manufacturing activity in which they have the expertise.

Research and development of new coatings and applications is continuous. Quaker Chemical's current focus includes advanced technology surface critical coatings for application in the fabrication of high-strength steels, deep drawing applications without the use of chlorinated chemicals, the use of chrome-free passivation chemicals,

Quaker's "Coil to Car" cost control programme is maximized through its Chemical Management Services (CMSSM) Programmes

and coatings that meet the most stringent environmental standards. These initiatives and other innovative products will continue to cut costs and add value for Quaker customers. ■

Additional information on FERROCOTE®, RapidShield™, "Coil to Car", and Chemical Management Services is available at www.quakerchem.com.