

# Environmentally conscious manufacturing

**P**rotection, conservation, and improvements to environmental quality — as well as human health protection and rational use of natural resources — are within the objectives of the European Union environment policy. This involves significant changes in the current trend of production, consumption, and behavior, in order to avoid wasting natural resources.

The first step against industrial contamination is the prohibited use, in all production processes, of heavy metals such as lead, mercury, cadmium, and hexavalent chromium (Cr VI, used in metallurgy for anti-corrosion treatments) that can be released in the environment.

Olmark SpA, Reggio Emilia, Italy, has responded to this change, and is



aiming to eliminate polluting substances from production processes. The company is working to develop new zinc coating technologies that are hexavalent chromium free and trivalent chromium-based (Cr III) instead.

The new platinum superficial treatment consists of a passivation process (zinc coating) that is chromium trivalent-based. Olmark's technical staff has conducted severe and

demanding tests, in order to guarantee that the elimination of hexavalent chromium from coating processes does not jeopardize — but instead improves — the suitability of products submitted to this treatment, such as crimped fittings, adaptors, and bent rigid pipes.

As well as being environmentally friendly, the new platinum treatment ensures a 400-hr salt spray resistance to red rust formation, with a 300% performance improvement compared to the former coating, in conformity with the American ASTM-B-117 directive.

*This information was provided by Monica Giacobelli, of Olmark SpA. For more information, e-mail [info@olmark.net](mailto:info@olmark.net) or visit [www.olmark.com](http://www.olmark.com).*