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NEW, COST-EFFECTIVE AND COMPLIANT PAINTING PROCESS FOR RADIATORS

Henkel's innovative BONDERITE® M-PP coating process delivers a simple and economical alternative to electro coating and for one European manufacturer, adoption of the technology has underpinned its survival. The process not only provided conformity with increasingly tight environmental legislation, enabling production to continue, but it also boosted product quality too.

Radiateurs Industrie has been a major player in the French domestic heating market for over half a century and is the sole manufacturer of panel radiators in France; it currently produces around 400,000 radiators per year. Until the end of 2015, the company still operated a conventional dip paint primer process that contained solvents. These had to be eliminated in line with new EU law in favour of a sustainable, water-based process.

Through its BONDERITE brand, Henkel is an established leader in metal pre-treatments and functional coatings and known for its ability to develop cost-effective, customer-tailored solutions. The company proposed its BONDERITE M-PP process as a solution to Radiateurs Industrie's compliance problems and the method whereby the company could also greatly improve the aesthetics and corrosion resistance of its radiator products.

The new paint process had to be 100% solvent-free, compact enough to fit into the new extension to the factory and of course, cost-competitive. The primer coating's compatibility with the powder top-coating was also essential and the process was required to create a uniform thickness over the entire radiator surface, even on the difficult-to-reach internal convector plates. Additionally, the coating had to be transparent.

The combination of these factors made this a particularly challenging project and Henkel had to be particularly innovative to meet tough cost targets but the end result was a great achievement. Operational since 2016, Radiateurs Industrie's new BONDERITE M-PP process is now able to coat complex ferrous metal parts uniformly, including inside tubes and sharp edges.



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The chemical composition of the process is entirely free of solvents and VOCs and its low environmental impact is complemented by very little energy consumption and minimal waste water. The process starts with alkaline degreasing, tap water and reverse osmosis water rinses, the BONDERITE M-PP coating is then applied and stoved at 90 °C.

Raphaël Alain, Operations Director of Radiateurs Industrie commented: “Transitioning from the traditional solvent process to Henkel BONDERITE M-PP was an obvious choice once we realised how easy and robust it is. It’s also able to coat three million square metres of complex shaped components per annum without subjecting them to an electric current. And as proof of its simplicity, it worked perfectly from the first day of production.”

Photocaption: The innovative BONDERITE M-PP coating process provides a simple and economical alternative to electrocoating.

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2016, Henkel reported sales of 18.7 billion euros and adjusted operating profit of 3.2 billion euros. Combined sales of the respective top brands of the three business units – Loctite, Schwarzkopf and Persil – amounted to more than 6 billion euros. Henkel employs more than 50,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com