

CASE STUDY FOR THE RAIL INDUSTRY

IMPROVING EFFICIENCY AND QUALITY WITH AN NVH SUSTAINABLE SOLUTION



CUSTOMER CHALLENGE

A rail customer had quality, efficiency and health & safety issues with a competitor product.

- At a rail wagon the outer panel is stitch welded to the chassis (reinforcement beams). **To avoid moisture and corrosion**, the gap between panel and the reinforcement beam needs to be perfectly sealed. In time the product should be free of cracks*. The competitor's product became brittle causing moisture ingress that led to premature corrosion. Corrosion is the worst enemy of the steel construction.
- This product showed **difficulties in the application** as it often started to cure in the feed lines and clogging up the dispensing gun.
- The customer required additional manpower to ensure the product was evenly applied. This resulted in extra application layers by brush (touch-up).
- The product was not compatible with the double-sided tape on the pre-cut insulation material the customer was using and was **not compliant with health & safety regulations** as it is a solvent-based product.

**Refer to next page for illustrative images.*





HENKEL SOLUTION

The Henkel expert team did preliminary tests and offered product sampling to understand further the customer's challenge.

Henkel proposed **TEROSON WT 218 FR – 200**, a water-based and synthetic resin that is designed to be spray-applied using airless equipment. It can be dried at room temperature. It offers sound insulation properties, sealing and good abrasion resistance.

TEROSON WT 218 FR – 200's properties solved the following customer challenges:

- **Cost-efficiency:** Reduced by >75% labor and manpower as it is easy to apply and use and there is no need to touch-up after application.
- **Compatibility:** It is compatible with the standard [customer's] spray equipment as well as their EP primer, pre-cut insulation material and double-sided tape (all non-Henkel).
- **Flexibility:** Our product stays flexible over time to avoid rework or reapplication.
- **Main properties:** It fulfills HL 2 requirements in accordance with railway fire norm EN 45545-2 and has NVH-properties.
- **Waste reduction and enhances health & safety:** When sprayed, the product is sag resistant on vertical surfaces, up to a thickness layer of 4mm. The product is applied in one movement/layer, giving a clean spray pattern. The large package size (drum) reduced waste compared to the competitor product. This product is a sustainable product as it is water-based thus non-hazardous material.

TEROSON



Image 1: Cracks appeared, over time, in the competitor product. Source: Henkel



Image 2: Application of Henkel product Teroson WT 218 FR – 200. Even spray pattern, no overspray, non-sag material. Source: Henkel



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LEARN MORE ABOUT TEROSON

