



Press Release

March 05, 2026

Primer-less, tin-free formula ensures better performance, enhanced safety, and regulatory compliance

Henkel engineers new fire-retardant, sustainable interior and exterior adhesive sealant for rail applications

Düsseldorf – Henkel today announced the addition of Teroson MS 949 FR to its portfolio of sustainable adhesive sealants. The new material provides durable, flame-resistant sealing for all interior and exterior railcar applications, including around windows, doors, floor panels, side panels, ceilings, lights, HVAC systems, and between the driver compartment and passenger cab. With an excellent adhesion range and a unique formulation, Teroson MS 949 FR offers rugged performance, prioritizes operator health and safety, and enables streamlined processing.

Meeting stringent industry flame retardancy standard EN 45545-2, Teroson MS 949 FR has demonstrated good fire resistance and low smoke emission, achieving excellent results consistent with the rail market's regulatory requirements for passenger safety. At oxygen concentrations as high as 28%, the sealant does not ignite. Importantly, this standard has been met while also significantly improving adhesion and skin formation performance compared to competitive and older-generation formulations. The material forms a skin in 30 minutes under high humidity conditions and demonstrates superior adhesion, outperforming other commercial adhesive sealants in adhesion metrics, even after water immersion. Teroson MS 949 FR's strong adhesion to multiple substrates and resistance to UV exposure, humidity, and aggressive cleaning agents make it one of the most durable and reliable adhesive sealants in the rail industry.

According to Henkel Lead Application Engineer, Guillaume Sandoz, the rail sector is being pushed to deliver on all fronts. "In addition to the enduring requirements for safety, reliability, and cost-efficiency, railcar manufacturers are faced with a dynamic health and environmental regulatory environment," Sandoz says. "With Teroson MS 949 FR, Henkel is helping to bridge

this seemingly insurmountable divide with a formulation that solves these challenges for sealing applications. Our new adhesive sealant is durable, sustainable, health- and safety-optimized, and easy to apply. It addresses every requirement – and then some. And even though designed for railcar sealing, this versatile material is suitable for other fire-sensitive applications, including tunnels, elevators, and fire doors.”

Satisfying the rail market’s efforts to eliminate substances of very high concern (SVHCs) and upholding Henkel’s sustainability commitment, Teroson MS 949 FR is built on Henkel’s novel silane-modified polymer (SMP) chemistry platform. This backbone enables formulation without tin, phthalates, isocyanates, solvents, BPA, or PFAS, improving worker health and safety and reducing CO₂ emissions. Furthermore, because the one-part adhesive sealant provides strong adhesion to multiple substrates, including glass, glass fiber, metal, reinforced plastic, and painted surfaces, Teroson MS 949 FR eliminates the need for primer, simplifying application, maintenance, and repair to streamline application and inventory control for lower total cost of ownership.

“Rail designers, manufacturers, and repair specialists want rugged materials that work without fail and without health risk,” emphasizes Sandoz. “Henkel is designing this value into every rail product we formulate, and Teroson MS 949 FR is proof of this achievement.”

Explore Henkel’s breadth of rail industry material solutions [here](#). To discuss Teroson MS 949 FR for specific applications, please [request a consultation](#).

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About Henkel

With its brands, innovations and technologies, Henkel holds leading market positions worldwide in the industrial and consumer businesses. The business unit Adhesive Technologies is the global leader in the market for adhesives, sealants and coatings. With Consumer Brands, the company holds leading positions especially in laundry & home care and hair in many markets and categories around the world. The company’s three strongest brands are Loctite, Persil and Schwarzkopf. In fiscal 2024, Henkel reported sales of more than 21.6 billion euros and adjusted operating profit of around 3.1 billion euros. Henkel’s preferred shares are listed in the German stock index DAX. Sustainability has a long tradition at Henkel, and the company has a clear sustainability strategy with specific targets. Henkel was founded in 1876 and today employs a diverse team of about 47,000 people worldwide – united by a strong corporate culture, shared values and a common purpose: “Pioneers at heart for the good of generations.” More information at www.henkel.com

Photo material is available at www.henkel.com/press

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