

Rail & Mass Transit

Case Study: Freight cab floor refurbishment

Silicone Engineering has long worked with various companies that serve the Rail and Mass transit sector, from large distributors to specialist OEMs.

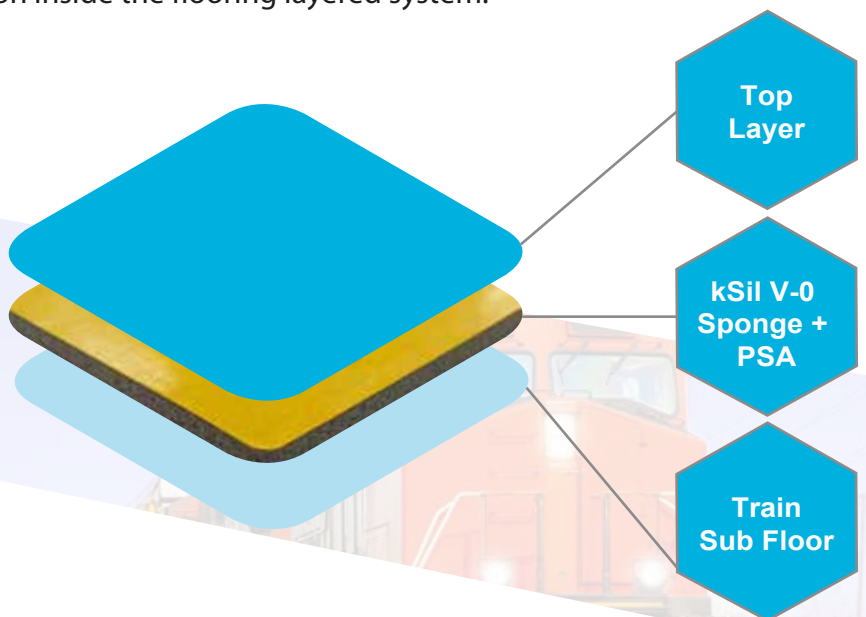
Design engineers in the transportation industry are continuously looking for new ways to create lightweight structures to meet economic and environmental demands.

The Opportunity & Challenge

A global rail solution provider contacted Silicone Engineering via the website enquiry form regarding a silicone material compliant with UL94V0 and EN45545. The company had a project to refurbish train freight cab floorings to bring them in line with materials compliant with these standards.

Various layers of materials are used in this process when constructing cab floors. The current rubber was a non-silicone product and needed substituting because it did not meet the current standards.

In addition to the required specifications, the company also desired a durable material that could act as a defence barrier against condensation inside the flooring layered system.



BOMBARDIER



The Solution: **kSil[®] V-0**

Following initial contact via the enquiry form, conversations and scheduled meetings quickly occurred. Silicone Engineering's material engineers selected kSil[®] V-0 closed-cell sheeting as the material for the layer inside the new flooring sandwich structure.

kSil[®] V-0 provided the system with a compliant material towards the targeted specifications whilst giving a lightweight, flame resist layer within the flooring composition. The closed-cell structure would give vibration-dampening properties to help isolate and absorb vibrations within the cab floor.

Additionally, the layer provided thermal insulation, which would help maintain the correct cabin temperatures for the freight cargo through extreme environments, preventing heat loss and increasing efficiency. The uniformed closed-cell structure of the sponge layer also acts as a condensation barrier, shielding against corrosion due to its ultra-low water absorption adding to the system's lifespan.

After the meetings and three months of successful trials, the customer could add the material to their supplier system.

Click the links for more silicone rail applications: <https://silicone.co.uk/industries/rail-mass-transit/>

