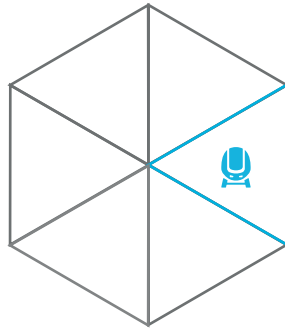




Rail

suraSi
SILICONE SOLID EXTRUSION



Rail Case Study: De-trainment Door Seal

Despite the pandemic, the rail market continues to move forward with accelerated urbanisation and public investment strategies. Large projects such as HS2 are in motion to connect the UK economies in a more unified network post-Covid.

Whilst designing mass transit systems, passenger safety is at the forefront of design, construction and material procurement. The new generation of train safety features include; smart smoke detectors, emergency intercoms, and large detrainment doors to swiftly evacuate passengers in emergencies, vehicle breakdown or an accident.

The Opportunity & Challenge

A mass transit design and engineering company contacted Silicone Engineering regarding a new Rail contract they had taken on. Their task was to create a detrainment system for the front and back of an over-ground train.

The company's design challenge was to construct a structurally secure detrainment system that could deploy steps for the train's front and rear carriages. The customer required a silicone door profile seal that could meet the stringent EN45545-2 low smoke and toxicity specifications required for EU rail designs.

EN45545-2





The Solution: **suraSil™** LCH EN 70

The project was passed to our material engineers to review and due to the specification required for the project, they suggested using our EN45545-2 approved material suraSil™LCH-EN70 silicone rubber.

Following a review of the drawing, the material engineers confirmed we could manufacture the part to the drawing and specifications provided.

suraSil™LCH-EN has been specifically developed for use in the rail/mass transit industry where fire safety is a priority. The grade has been tested to and complies with: EN 45545-2,(HL2 and HL3) BS6853 Category A1 and NF F 16-101 I2 F0.

The customer was pleased with the material solution and ordered suraSil™ LCH-EN 70 for the detrainment door seal application.

Silicone rubber and sponge is extensively used throughout train interiors due to its flame resistance, low compression set, temperature resistance and long lifespan.

