



## Case Study

### Network Rail - Icicle Formation

**GEOGRAPHICAL AREA:**  
Great Britain

**ISSUE:**

Icicles formation in tunnels, causing potential derailments and damage.

**SOLUTION:**

Energy Protect™

Coverage: 2-coats

**RESULTS:**

- ✓ Resistance to icicle formation
- ✓ Hydrophobic surface
- ✓ Increased rail safety
- ✓ Resistance to mold growth
- ✓ Cost effective and lowers ongoing maintenance costs

Uncoated surface with icicle formation



## Award Winning Energy Saving and Asset Protection Coatings



Network Rail is the owner and operator of most of the rail infrastructure in Great Britain. One issue they've been working to solve is icicle formation in tunnels. When icicles form inside the train tunnels or on overpasses, they can drop off onto the tracks causing potential derailments. Millions in costs are spent each year removing ice before that can happen happens.

They first began looking into using Energy Protect™ coating on the bridge tunnels in areas such as the tunnel eyeholes and ceilings in 2011 after becoming aware of the hydrophobic and insulating nature of the technology. After completing a successful preliminary "phase I" trial, they expanded the evaluation project in 2013 to encompass approximately 8-12 tunnels and were pleased with the results and began planning a rollout

project over more tunnels and other infrastructure.

**Energy Protect™ coating applied to bridge soffits and tunnel structures provides resistance to icicle formation, thus reducing the cost for icicle removal and increasing rail safety.**

