

Limfjord Tunnels

Case study

Focus product: Intercrete® 4841

Location: Denmark

Client: Danish Road Directorate

Summary: Waterproofing and protection of 2000m² vermiculite fireproofing



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Background

These twin 570 metre long road tunnels channel traffic under the Limfjord Canal in Denmark.

Originally built in the early 1960's, the lower half is protected with white tiles, whilst the upper half of the walls and the ceiling remained bare concrete until, to improve the acoustics within the tunnels and upgrade the effective fire retardant properties, a spray cementitious vermiculite insulation system was applied. However, this in turn needed to be protected with a highly abrasion resistant waterproof coating, as the walls are frequently subjected to intense cleaning regimes from large, mobile cleaning vehicles.

The solution

Intercrete 4841 was specified to provide the insulation with the protection it needed. It forms a dense, highly alkaline coating which not only protects concrete from the effects of aggressive acid gases, moisture and de-icing salts, but also ensures excellent chemical resistance. The Intercrete 4841 application was continued on to the area directly above the tiles to give a consistent appearance and, to improve the level of illumination within the tunnels, the coating was in this case, applied in White.