AXALTA COATING SYSTEMS

Abcite®

Perforated steel façade exposed 16 years to marine conditions



The project:

Located on the eastern coast of the island of Zealand, Copenhagen is not only permanently exposed to a corrosive marine environment, but also experiences unstable and changing weather conditions all year long: snow, rain and the warm Atlantic Gulf Stream are all seen, resulting in extremely harsh conditions for buildings and architectural assets.

With its 8,6 million visitors per year, Copenhagen's shopping mall of Fisketorvet located in the old inner harbor area perfectly illustrates the challenges of building an asset in a maritime zone.

In 2000, the Danish building contractor of the mall decided to use perforated steel sheet to conceal fire escapes and others elements attached to the masonry of building.

The challenge:

The coating for the 9.500 m of perforated steel sheets had to provide excellent edge coverage, resistance to the occasional saline mist and a sufficient flexibility to allow the sheet to be bent at a 90 degree angle without showing cracks. The coated sheet had to be sufficiently abrasion resistant that textile banners or large advertisements made from textiles could be attached







Application:

Building infrastructure and perforated steel protection

Product:

Abcite® 545

Location:

Copenhagen, Denmark

Client:

Fisketorvet Copenhagen

Mall

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The solution:

After careful testing of several alternatives, **Abcite® 545** was chosen for this job. The sheet used was electro-galvanized steel – a total of 62 tons – which was stamped, subsequently degreased, wire-brushed, heated to over 300 °C and immediately thereafter dipped using the fluid-bed method, applying a coating thickness of 500 μ m. The end result was spectacular and the design of the building has since drawn a lot of attention as a prominent attraction in the old inner harbour area of Copenhagen.



16 years later:

2016, and now more than 16 years service have not affected the appearance of the building at all. No corrosion, even on damaged parts. The design of the building has not lost any of its attractiveness.



Key Points

- Excellent salt spray resistance
- Long term weathering and UV resistance
- Easy application: good coverage in Edges, corners and difficult areas
- Exceptional abrasion and impact resistance
- Excellent resistance against most acids and alkalis
- Efficient and economic: no need for Primer, high film thickness
 300 - 600 µm
- Flexible application methods (spraying or dipping)
- Repairable in situ