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Application of protective and insulation coating on

T-1309 and V-1137 at PL-Q13a-PA

ALTRAD
BALLIAUW

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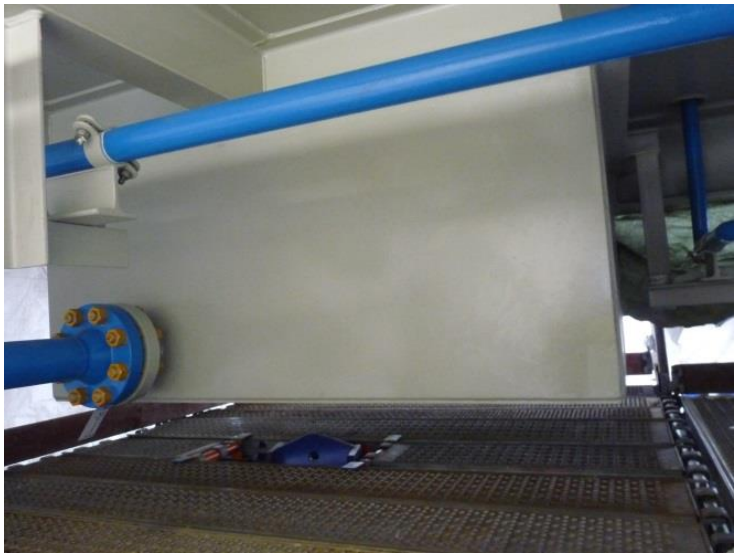
Used coatings:

- Rust Grip as protective layer, rust inhibitor and primer (150-200 mu)
- Hot Surface Coating (HSC) as an insulative layer (10 mm)
- EnduRoof as a protective top coat for the HSC (1.2 – 1,5 mm)
- EnduRoof TOP-E as extra elastic protection layer against weathering and as color protection

Project description:

To prevent corrosion and condensation problems, the objects T-1309 and V-1137 are being treated with an insulation and protective coating system, consisting of Rust Grip, HSC, EnduRoof and TOP-E



T-1309

V-1137

Both objects have been completely sanded before applying first coat of Rust Grip. Two layers of Rust Grip have been applied with a total DFT thickness of 150 microns.

T-1309 after applying Rust Grip

V-1137 after applying Rust Grip

While Rust Grip was still tacky, first layer of HSC was applied. To have more contrast between the layers and for easier application, HSC was being colored with a coloring agent. Blue and red Ecoline was used at 30 ml per pail. Ecoline is a water born coloring agent, which doesn't affect the properties of HSC.

HSC with blue Ecoline

T-1309 blue HSC over white HSC (bottom)

V-1137 with red and blue HSC

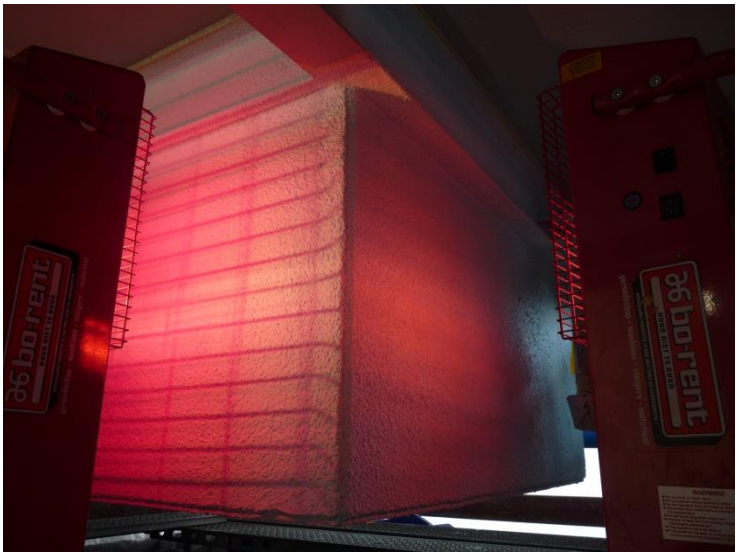
Approximately half way the process first measurements have been made to establish the overall thickness of the HSC.

T-1309 thickness in mm

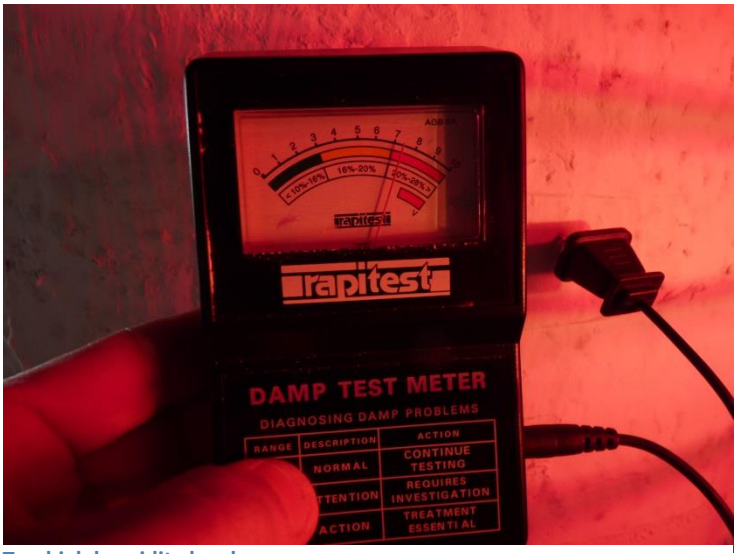
V-1137 thickness in mm

Because HSC is primarily manufactured for online applications on hot surfaces, drying times are highly affected by weather circumstances when applied outside on cold surfaces without additional heat source. Normal ambient temperatures in May are around 20 degrees Celsius, which is no problem for HSC if you give enough dry time between layers. During the project we have been experiencing anything but perfect weather conditions of around 10 degrees with rain and high humidity. This caused the exposed HSC layer to dry very slow and even attract moisture.

Additional heaters have been placed to speed up the drying process and we decided to wait for better weather circumstances and lower humidity percentages inside the HSC layer to finish the project with the protective top coat of EnduRoof and TOP-E.



Heaters installed to speed up drying process



Too high humidity levels

After waiting for almost 2 weeks for better weather conditions, humidity levels were at reasonable levels which resulted in applying the EnduRoof and TOP-E protective layers.

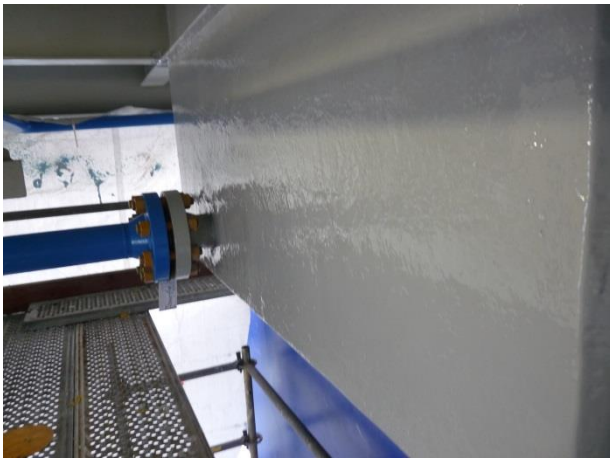
HSC surface has been smoothened by stuccoing and sanding before EnduRoof was applied.

Surface smoothened by stuccoing and sanding

First layer of EnduRoof applied on V-1137

After two layers of EnduRoof of 750 grams per square meter, the final protective topcoat TOP-E was applied to give the total system extra strength and resistance to weathering.

V-1137 finished



T-1309 finished

Detail of complete system

Detail of complete system

Details and edges have been smoothened out to assure no moisture will penetrate the system.

Conclusion

Although weather circumstances were not ideal, which caused longer application- and dry times, the complete system has been applied meeting our standards and satisfaction. The test with coloring the HSC layers with Ecoline at each new application layer worked very well and drastically simplified the application.

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Project has been carried out by Superior Products Netherlands as subcontractor for Altrad Balliauw Multiservices, contracted by Cofely Fabricom GDF-Suez.