



Priceless safety at Amsterdam Airport Schiphol with Hempafire Pro 315 Fast Dry

When Amsterdam Airport Schiphol began an extensive expansion project, safety was top of mind as always. Portuguese coating application company Nanosteel was looking for a coating that offered reliable PFP (passive fire protection), was fast to apply and could be used for all 6,000 tons of structural steel – regardless of the steel’s profile or the corrosion environment in which it would stand. Our solution was Hempafire Pro 315 Fast Dry.

Like other PFP coatings, Hempafire Pro 315 Fast Dry is applied in thin layers to structural steel. When exposed to fire, it expands to form an insulating char, which enables the steel to retain its loadbearing capacity for longer, giving extra time for evacuation and emergency response. Unlike other PFP coatings, however, Hempafire Pro 315 Fast Dry is designed with applicator efficiency in mind.

“Due to the lower loadings of Hempafire Pro 315, we can now use less paint resulting in quicker drying times. This is a big advantage to our business as it will improve our delivery times and maximise our overall productivity and throughput.”

Artur Marques, Chief Executive Officer, Nanosteel S.A

Hempafire Pro 315 Fast Dry, exceeding expectations

Amsterdam Airport Schiphol - EN 13381-8 (60 minutes cellulosic fire)

Country: Netherlands

Owner: Royal Schiphol Group

Steel construction: Bysteel

Paint application: Nanosteel, MMO

Main contractor: Ballast Nedam-TAV

Environment: C2 to C4

Intumescent products used: 43361 / 43601

Total coverage: 12,091 m²

Application: Airless spray

Orientation	Surface area (m ²)	Volume using Hempel specification (litres)	Volume using specification B* (litres)	Volume saving for this project (vs specification B)*
Open profile column	1,677	1,030	1,140	9.7%
Open profile beam	6,334	4,338	5,134	15.5%
Rectangular hollow sections	2,946	2,765	3,667	24.6%
Circular hollow sections	1,134	946	1,332	29%
Total	12,091	9,079	11,273	19.5%

*Compared to other EU market leading solvent-borne paint solutions for 60 min. fire protection (at the date of specification). Data comparison is based on Hempafire specification publicly available data. Actual volume savings for your project could be dependent on project details such as section sizes, critical temperature, orientations etc. Data presented reflects volume savings of intumescent coating, abstracting from other aspects like project completion time, price or volumes of complementary products (primer, topcoat).

The challenge

Amsterdam Airport Schiphol is the main international airport in the Netherlands and the third-busiest airport in Europe with more than 71 million passengers during 2019. The airport is currently being expanded, with part of the project including a new 55,000 square metre pier which will provide Amsterdam Airport Schiphol with eight new aircraft gates.

With a strong commitment to fire safety, Amsterdam Airport Schiphol boasts an extensive training programme for firefighters to ensure the fastest possible response time in case of emergency. It was no surprise therefore that the airport wanted a high quality PFP (passive fire protection) coating for the 6,000 tons of structural steel in the new building.

Nanosteel, the main coating application company on the project, was looking for a PFP coating that provides at least 60 minutes passive fire protection – and is fast and easy to apply.

The solution

Our solution was Hempafire Pro 315 Fast Dry, an advanced PFP coating that delivers excellent passive fire protection and is optimised to reduce cost and time during application. For Nanosteel, Hempafire Pro 315 Fast Dry had a number of advantages.

Exceptionally low loadings

Thanks to a 19.5% volume saving compared to competitor products, Nanosteel could apply thinner dry film thicknesses, which reduced paint consumption and drying times. As a result, Nanosteel could coat more steel in less time.

Versatile application properties

Hempafire Pro 315 Fast Dry remains easy to apply, even at high film thicknesses, and gives an excellent finish. For Nanosteel, this meant less damage in transit and reduced touch-up work onsite – further increasing efficiency gains.

Reduced complexity

Because Hempafire Pro 315 Fast Dry can be used for all steel profiles in corrosive environments from C1 to C4, Nanosteel only needed to work with one PFP coating, significantly reducing project complexity.

For more information please contact your local Hempel representative or email protective@hempel.com

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