

Hempacore AQ

Product characteristics

Description

Hempacore AQ is a very low VOC, one-component waterborne acrylic thin film intumescent coating for passive fire protection of structural steel against cellulosic fires. It has been optimized for On-site applications at R60. Applications in shop and/or R90 may be possible depending on the project.

Recommended use

Hempacore AQ is recommended as an intumescent fire protection for structural steel in interior use up to Type Y conditions (EAD350402-00-1106 / EN 16623) and C2 conditions (ISO 12944-2). It is suitable for I-section beams, H columns, hollow sections and cellular beams. It can also be used as a repair and touch-up coating for damaged areas of freshly applied Hempacore AQ.

Service temperature:

- Indoor conditions.

Certificates / Approvals

- CE marked product with European Technical Assessment (ETA) ETA 13/1054. Up to 90 minutes.
- Assessed according to EN 13381-8, fire resistance of structural steel
- Assessed according to EN 13381-9, fire resistance of structural steel (cellular beams) Up to 60 minutes.
- Third-party verified, product-specific Environmental Product Declaration (Type III EPD, ISO 14025, EN 15804)
- Third party certified by Applus+; Fire Safety Mark
- Tested and assessed according to BS 476-21: Standard for Fire Test on Building Materials and structures; determination of the fire resistance of loadbearing elements of construction.
- Reaction to fire tested (as part of a coating system with approved primer and topcoat) according to EN13501-1

Features

- Excellent DFTs for open sections at 60 minutes
- Increased productivity thanks to high DFT per coat and faster drying, thus providing the required fire protection in less coats, reduced application costs and faster process time.
- Suitable for both open, closed and cellular beams steel structures.
- Tested and approved according to EN13381-8 for up to 90 minutes fire protection. It has ETA with 3rd party verified CE mark. It has BS-476 Assessment for up to 90 minutes fire protection with ApplusFire certificate.
- Environmental Product Declaration with third-party certification available (Type III EPD, acc. to ISO 14025, EN 15804). Product can contribute to EPD credits for LEED and BREEAM projects.
- Complies with EU Directive 2004/42/EC, The Paints Directive on the limitation of volatile organic compounds: subcategory

Product safety

Flash point 180°C [356°F]

VOC content

Legislation	Value
EU	0 g/L [0.00 lb/US gal]
US (coatings)	29 g/L [0.24 lb/US gal]
US (regulatory)	43 g/L [0.36 lb/US gal]
China	0 g/L [0.00 lb/US gal]

According to ISO 11890-2.

Handling

Handle with care. Before and during use, observe safety labels on packaging and paint containers and follow all local and national safety regulations. Always consult Hempel's Safety Data Sheet for this product along with the Product Data Sheet.

For professional use only.

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Product data

Product code

48860

Standard shade / code

White 10000

Gloss

Flat

Volume solids

73 ± 3%

Specific gravity

1.5 kg/L [12 lb/US gal]

Surface preparation

Cleanliness

- Remove salts, detergents and other contaminants by high pressure fresh water cleaning.
- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC).
- Zinc coated surfaces: use non-metallic blast media (corundum, garnet, etc.).
- Use approved primer.
- Remove oil, grease and other contaminants by suitable detergent cleaning.
- Remove dust, blast media and loose materials.
- The surface must be dry and clean prior to application.
- For approved substrates other than Carbon Steel, the substrate may require other surface preparations, consult Hempel's application instructions for detailed information.
- Minor areas can be cleaned by power tool to St 3 provided the surface is roughened and not polished.
- Consult Hempel's separate Surface Preparation Guidelines for more details.

Maintenance and Repair

- Minor areas may be hand or power tool cleaned instead of abrasive blasting.

Consult Hempel's separate Surface Preparation Guidelines for more details.

Application

Thinner

Not Recommended

Cleaner

Fresh water

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Application method

Tool	Application parameters
Airless spray	Nozzle pressure: 200 bar [2900 psi] Nozzle orifice: 0.017-0.023"

If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. In general, thinning is not recommended. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

The film thickness is dependent on the required fire resistance as well as the massivity factor (Hp/A) of the steel element. Please contact your local Hempel representative. Please consult the Application Instruction for more detailed information. The maximum thickness per coat is 800 micron [32 mils] Dry Film Thickness equivalent to 1100 micron [43 mils] Wet Film Thickness.

Application conditions

- To avoid condensation, apply on a clean and dry surface with a temperature that is at least 3°C [5°F] above the dew point.

Relative Humidity:

- Relative humidity must be below 85% during curing.

Application remarks

- Stir well before use.

Drying and overcoating

Product compatibility

- Previous coat: According to Hempel's Specification. Only Hempel approved primer. Consult Hempel representative for information on approved primers.
- Subsequent coat: According to Hempel's Specification. A selection of approved topcoats is available. Consult Hempel representative for information on approved topcoats.

Overcoating details

- Please consult the specific Drying time and Overcoating details for this product.
- Consult Hempel for specific details
- A topcoat cannot be applied before the specified intumescent thickness has been achieved and the coating is sufficiently dry. Consult Hempel representative for more detailed information.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Product	12 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Storage at elevated temperatures may reduce shelf life. For advice, please consult Hempel.

Storage conditions

- Temperature must not go below 5°C [41°F] during transport and storage.
- In case shelf life is exceeded, the product must be re-evaluated before use. Please contact a Hempel representative.
- The product must be stored in accordance with Safety Data Sheet, label and local regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

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Additional documents

Additional information is available at the Hempel website
<https://www.hempel.com/service-and-support/technical-guidelines>
or at your local Hempel website:

- Explanatory Notes for Product Data Sheet.
- Application methods.
- Application Instruction for this product.
- Drying time and Overcoating Intervals for this product.
- List of approved primers and topcoats

This Product Data Sheet ("PDS") relates to the supplied product ("Product") and is subject to updating from time-to-time. Accordingly, the buyer/applicator should have regard to the PDS supplied together with the relevant batch of the Product (and not an earlier version). In addition to the PDS, the buyer/applicator may receive some or all of the following specifications, statements and/or guidelines as listed below or as are available from the Hempel website under 'Products' at www.hempel.com (the "Additional documents"):

No.	Document description	Location/comments
1.	Technical Statement	One-off specific advice provided on request for specific projects
2.	Specification	Only issued for specific projects
3.	PDS	This document
4.	Explanatory Notes to the PDS	Available at www.hempel.com and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at www.hempel.com
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at www.hempel.com

In the event of a conflict of information between the PDS and the Additional documents, the order of priority of information shall be in the order as set out above. In such event you should also contact your representative at Hempel for clarification. Furthermore, the buyer/applicator must have full regard to the relevant Safety Data Sheet provided with each Product and which can also be downloaded from www.hempel.com.

Hempel shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements set out in the relevant PDS and the Additional Documents. The information and terms of this disclaimer apply to this PDS, the Additional documents and any other documents supplied by Hempel in respect of the Product. In addition, the Product is supplied and all technical assistance is given subject to Hempel's General Conditions of Sale, Delivery and Service, unless otherwise expressly agreed in writing.