



FIRETEX® CONCRETE WB-120

WATER-BASED INTUMESCENT FOR CONCRETE STRUCTURES

Revised 07/2023 Issue 1

PRODUCT DESCRIPTION

A water-based fire protection coating system for concrete located in interior situations, e.g. not exposed to weathering. It forms an insulating carbon char foam under the effect of heat or fire and protects the concrete substrate against heat and fire.

- Free of halogens and aromatic solvents
- Direct application on concrete. No need of primer or scrim
- Repair mortars available upon request

RECOMMENDED USE

FIRETEX® Concrete WB-120 is designed for refurbishing / change of use of building structures like concrete.

It prohibits the spalling of concrete structures and significantly delays the heat input to steel reinforcements.

Note: In case of semi-exposed or exposed areas (Type Y) please contact the technical department for further consultation.

PRODUCT TECHNICAL DATA

| | |
|-------------------------|---|
| Volume Solids: | 71 ± 2% (according to BCF Guidance Method) |
| VOC: | 0 g/l determined practically in accordance with Protective Coatings Directive of German Paint Industry Association (VdL-RL 04). 0 g/l calculated from formulation to satisfy EC Solvent Emissions Directive. 0 g/kg calculated from formulation to satisfy EC Solvent Emissions Directive (UK). |
| Colours: | White |
| Flash Point: | Not applicable |
| Cleaner/Thinner: | Water (for cleaning) Thoroughly clean tools and equipment immediately after use. Do not thin FIRETEX® Concrete WB-120. |
| Pack Size: | Single component material: 25 kg (18.5 litre). Volume will vary with density. |
| Density: | 1.35 kg/l |
| Shelf Life: | 18 months from date of manufacture, stored in originally sealed containers in a cool and dry environment - Protect from frost. |

Recommended Application Methods:

Airless Spray, Brush and Roller

Typical Thickness:

Recommended Spreading Rate Per Coat

| | Typical |
|--------------------------|---|
| Dry | 500 µm |
| Wet | 704 µm |
| Theoretical Consumption* | 0.951 kg/m ² 0.704 l/m ² |
| Theoretical Coverage* | 1.05 m ² /kg 1.42 m ² /l |

The following table indicates the equivalent concrete** thickness to be substituted by FIRETEX® Concrete WB-120 based on different fire resistance periods.

| Concrete structure/ concrete type1 | DFT FIRETEX® Concrete WB-120 |
|---|------------------------------|
| Coverage range for slabs and walls, one dimensional | 0.853 – 2.173 mm |
| Coverage range for columns and beams, horizontal and vertical orientation | 0.850 – 3.486 mm |

* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment.

** C25/ 30 concrete type.

Fire rate of FIRETEX® Concrete WB-120 depends on national standard. See corresponding separate consumption table / diagram.

| Exposure period 500°C: | 60 min | 90 min | 120 min |
|---|----------|----------|---------|
| Equivalent concrete thickness for slabs and walls | 22-44 mm | 31-47 mm | 48 mm |
| Equivalent concrete thickness for columns and beams | 29-54 mm | 28-55 mm | 54 mm |

The test results are based on EN 13381-3:2015 and the requirements set in EN 1992-1-2 and DIN 4102-4.



FIRETEX® CONCRETE WB-120

WATER-BASED INTUMESCENT FOR CONCRETE STRUCTURES

Revised 07/2023 Issue 1

AVERAGE DRYING TIMES

For 500 µm Dry Film Thickness:

| | + 20°C and 60% RH |
|---------------|-------------------|
| Dry to touch | 10 min |
| Dry to handle | 20 min |

Minimum and maximum recoat intervals (at + 20°C)

FIRETEX® Concrete WB-120 requires a minimum of 12 hours drying prior to application with itself.

It requires a minimum of 24 hours drying prior to application of topcoats FIRETEX® Top WB and FIRETEX® Top SB / FIRETEX® Top SB EG.

A complete drying of the fire protection coating prior topcoat application is mandatory.

Through-drying of FIRETEX® Concrete WB-120 can be checked by 'fingernail-test'.

Final cure: Approx. 24 hours after application of last coat at + 20°C object temperature and 60% relative humidity.

These figures are given as a guide only. Factors such as air movement, film thickness and humidity must also be considered.

APPROVALS & ENDORSEMENTS

Independently fire tested and approved to major European and national standards including:

- EN 13381-3:2015

Sustainability:

- Complies with French VOC (A+)

SURFACE PREPARATION

Surfaces to be coated must be brushed off and vacuum cleaned afterwards. They have to be solid to support any loads, free of sludge, dirt, oil, grease, wax, water-repellent agents and other contamination. Residual humidity in the concrete must be below 4% according to CM-humidity measuring instrument.

In case of existing coatings, a compatibility test with the fire protection system is mandatory.

Any damage or imperfection (impact, corrosion, etc.) should be repaired prior the coating with the adequate repair mortar.

MIXING

The material is supplied ready for use; stir thoroughly with a mechanical paint mixer prior to application.

During mixing and handling of the materials always wear protective goggles, suitable gloves and other protective clothings.

APPLICATION CONDITIONS

Substrate temperature shall be between + 5°C and + 40°C* and at least 3°C above the dew point.

Material temperature shall be above + 15°C

Relative air humidity shall be below 80%.

During application and drying of total FIRETEX® Concrete coating system including FIRETEX® topcoats as well as transportation special protection measures must be taken against weathering.

* If higher temperatures occur, please consult Sherwin-Williams for further assistance.



FIRETEX[®] CONCRETE WB-120

WATER-BASED INTUMESCENT FOR CONCRETE STRUCTURES

Revised 07/2023 Issue 1

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for satisfactory application characteristics. Always purge spray equipment before use with listed cleaner (water).

Airless Spray

Unit: Efficient airless equipment (pressure ratio > 45: 1)

Tip Size: 0.48 – 0.61 mm (0.019 – 0.024 inch)

Fan Angle: 40° - 80°

Operating Pressure: min. 200 bar (2900 psi)

Spray hoses: Ø ¾ inch (10 mm), max. 20 m
+ 2 m with reduced Ø of ¼ inch (6 mm)

Note: Hoses must be used for water-based products only.

Temperature of material and equipment at least + 20°C. Remove sieves. Pump directly (without connected suction hose). Material shall be applied undiluted.

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent satisfactory atomisation.

As conditions will vary from job to job, it is the applicators responsibility to ensure that the equipment in use has been set up to give the best results.

If in doubt consult Sherwin-Williams customer service.

Brush and Roller

- Material shall be applied undiluted
- Load natural fine bristle brushes or short pile lambswool rollers are recommended

RECOMMENDED SYSTEMS

Damaged concrete surfaces:

Suitable repair mortar

Primer:

Not needed

Fire protection coating for concrete:

FIRETEX[®] Concrete WB-120

Topcoat (optional):

- FIRETEX[®] Top WB, available in all RAL colour shades
- FIRETEX[®] Top SB / FIRETEX[®] Top SB EG available in RAL colour shades or on request for other colour shades

For decorative reasons or in case of higher relative humidity we recommend the use of one of the above-mentioned topcoats (see separate product data sheets of the topcoats).

The use for semi-exposed and exposed areas (Type Y) is possible.

Please contact the technical department for further consultation.

HEALTH & SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Whilst all statements made about our products (whether in this data sheet or otherwise) are correct and accurate to the best of our knowledge, we have no control over the quality or the condition of the substrate, the application conditions or the many other factors affecting your use and application of our product.

The appropriateness of the product under the actual conditions of application or intended use must be determined exclusively by you. The content of this document, and of any oral or written statements already made or to be made in relation to the subject matter of this document, including any suggestions as to appropriate products and any proposed application methods, technical details and other product information represent only test results or experience obtained under controlled or defined circumstances, and is therefore provided for general information purposes only.

Unless we agree specifically in writing to do so, we will not be liable to you for any loss or damage whether in contract, tort (including negligence), breach of statutory duty, misrepresentation, misstatement or otherwise, arising under or in connection with this document or such statements.

We disclaim any express or implied representations, warranties or guarantees (including any implied warranty of merchantability or fitness for a particular purpose), though nothing in this disclaimer excludes or limits our liability for death or personal injury arising from our negligence, or our fraud or fraudulent misrepresentation, or any other liability that cannot be excluded or limited by law.

All products supplied and technical advice given are subject to our Standard Terms and Conditions of Sale which you should request a copy of and review carefully.

This document may be modified and updated from time to time, and is uncontrolled once printed. It is the users responsibility to ensure they are using the most up to date version – this can be found at: www.sherwin-williams.com/protectiveEMEA.

If this datasheet has been translated, then it has been done using the English version as the source. In case of any queries, please refer to the master English version which can be found at: www.sherwin-williams.com/protectiveEMEA.