SELECTION & SPECIFICATION DATA

Generic Type	A single package, water based intumescent coating designed for the protection of internal structural steel.
Description	A decorative white thin film intumescent coating designed for the fire protection of internal structural steel up to 60 minutes.
Features	• Smooth, decorative finish • Dust free Surface • Fast recoat, increased production • Ultra low VOC content
Color	White
Finish	Flat
Primer	The primer system shall not exceed 150 microns DFT total, with an absolute maximum allowable in overlap areas only of 200 microns DFT. Primed steel surfaces that are visibly high in gloss must be abraded/sanded to a matt finish. The primer must be applied in accordance with the manufacturer's instructions. It is recommended as best practice that a small test patch or area be prepared with the intumescent before commencing the full intumescent coating application to ensure that there are no issues with compatibility, adhesion or drying, etc. Contact Carboline Technical Service for a complete list of recommended primers.
Wet Film Thickness	Wet Film Thickness (WFT): 1000 microns - maximum
Dry Film Thickness	Dry Film Thickness (DFT): 690 microns - maximum Higher thickness's may be possible, however they will impact the drying times. The thickness's above are recommended for optimum film build and drying balance. For required thickness, consult Loading Tables.
Solid(s) Content	69% ± 3%
Theoretical Coverage Rates	1 kg/m2 based on an applied at 0,5 mm dry film thickness.
VOC Value(s)	0,5 g/l
Topcoats	No topcoats is required for protection C1 and C2 environments. However, the enamel application of compatible finish will extend the service life and protect the applied coat from aging, obtaining a superior expected durability of the applied passive fire protection system, as well as being able to obtain a decorative finish. The product must be applied in the appropriate thickness and be dry before proceeding with the application of the topcoat. Contact Carboline Technical Service for a complete list of approved topcoats.
Density	1,38 ± 0,02

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Environmental Resistance	C1, C2 and C3 environments only. For full details, please consult Carboline Technical Service. The construction phase environmental conditions may vary from those during the final building classifications. The construction phase may include higher exposure to the environment than the final classification. Each product and specification should be considered for the resistance during this construction phase including the limitations and caveats. During the drying phase, the intumescent must be protected from all forms of water including rain. In all cases, prolonged water contact must be avoided, including condensation, standing water, heavy running water and fresh concrete run-off (including alkaline moisture). Exposure may lead to detrimental damage to the coating system. An appropriate specification must be used for the protection of the full system in accordance with the environmental classification for the environment where the building is located. The environment during construction and transport should also be considered, if necessary, and the worst case used. Carboline Technical Service can assist with selecting an appropriate specification. **Construction phase:** 6 months with topcoat once fully dried.

SUBSTRATES & SURFACE PREPARATION

General	All surfaces must be primed with compatible primer and be clean, dry and free of oil, grease, loose mill scale, dirt, dust or other materials which would impair the bond of material to the substrate. Surface preparation must meet the requirements of the primer being used.

MIXING & THINNING

Mixing	Mix using an electric or air driven drill to stir material prior to use. Mix material for a minimum of 5 minutes to achieve the necessary texture required before spraying.
Thinning	Do not thin.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Airless Spray	Use Graco Mark V or equivalent 1,35 gal. (5,1 l) per minute electric airless (minimum) with ability to provide an operating pressure of 228 bar (3.300 psi). Inline filter should not normally be used.
Spray Gun	Silver Gun with gun swivel, Silver Plus, Graco XHF, WIWA 500F, WIWA PFP 500F or equivalent contractor gun (with filter removed).
Spray Tips	0.48 - 0.53 mm (0.019" - 0.021")
Fan Size	20 - 40 °.
Hose Length	Maximum hose length 60 m (200') when using a single hose.
Material Hose	10 mm (3/8") I.D. minimum.

APPLICATION PROCEDURES

General	May be applied by spray, brush or roller. Spray application is recommended for the optimum production, coverage and finish. When applying by brush or roller, work from a small container and mix material frequently. The original pail should be kept tightly closed.
Airless Spray	A single coat, built up with a number of quick passes, allows greater control over quantities,thickness and finish. In most conditions, it is advantageous to apply two thin coats rather than one thick coat.
Application Rates	At an ambient temperature of 21 °C and 50% relative humidity, the following application rates are applicable: Spray: no more than 1,0 mm per coat (wet) Brush/roll: no more than 0,60 mm per coat (wet)
Wet Film Thickness	Frequent thickness measurements with a wet film gauge are recommended during the application process to ensure uniform thickness.

CURING SCHEDULE

Surface Temp.	Cure Time
10°C (50°F)	4 Hours
20°C (68°F)	3 Hours
30°C (86°F)	2 Hours

These are times for a typical mid-range humidity and good air with an applied dry film thickness of 500 microns. Higher humidity, poor airflow or overnight condensation will all lengthen these times. Increased dry film thickness will result in longer drying times. Firefilm A6 should only be applied when the air and steel temperatures are above 5 °C. Relative humidity should be below 80 % for successful application. Steel surface temperature should be a minimum of 3 °C above the dew point. Application temperature range is between 5 °C and 40 °C.
The product is sensitive to moisture and must be protected at all times from exposure to water and moisture contamination, which would cause damage to the product, leading to the development of blisters, wrinkles and detachment after application. Protect from freezing.

CLEANUP & SAFETY

Cleanup	Fresh paint can be removed using water. Dried on paint may be removed using a paint scraper. Spray equipment must only be cleaned using water. Pump, Gun, Tips and Hoses and mixer should be cleaned at least once per day with water.
Safety	Read, understand and follow all caution statements on this product data sheet and on the SDS for this product and employ normal workmanlike safety precautions.
Overspray	All adjacent and finished surfaces shall be protected from damage and overspray.
Ventilation	When used in enclosed areas, thorough air circulation must be used during and after application until the coating is dried.

MAINTENANCE

General	If coating becomes damaged, rebuild required thickness by spray or trowel. When dry, smooth and finish with approved topcoat to match. Damaged areas must be abraded back to a firm edge by sanding or scraping. The topcoat should be abraded back by 30 mm (1 1/8") from the damaged area. The surface must be clean and dry before re-applying. The coating shall then be built back to the original thickness, allowed to dry, then overcoated with the specified topcoat or system.

TESTING / CERTIFICATION / LISTING

General	Element Materials Technology Rotterdam B.V. ETA 20/1200

PACKAGING, HANDLING & STORAGE

Shelf Life	9 months (when kept at recommended storage conditions and in original unopened container).
Storage	Store indoors in a dry environment between 5ºC and 35ºC. Protect from freezing.
Packaging	25 kg drums.

WARRANTY

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