

SELECTION & SPECIFICATION DATA

Generic Type	Water-based, Intumescent Fireproofing Coating
Description	Firefilm A4 is a water-based, white, thin film intumescent coating designed for the fire protection of internal structural steelwork for up to a 120 minutes fire resistance. The recommended use for this product is fireproofing of interior steel beams, columns, tubes, and pipes.
Features	<ul style="list-style-type: none"> • Very low VOC • Designed for on-site use • Meets BS476 Part 21: 1987 Certification • Meets C1 and C2 Environments Building Classification (ISO 12944)
Color	White
Finish	Smooth Matte
Primer	Firefilm A4 must be applied over a compatible primer. Contact Perlita y Vermiculita Technical Service for a complete list of approved primers. If the steel has already been coated with an existing primer, refer to Perlita y Vermiculita Technical Service for advice before applying.
Wet Film Thickness	Firefilm A4 may be applied up to a maximum wet film thickness (WFT) of 1.2 mm (47.2 mils) in a single spray coat.
Dry Film Thickness	0.8 mm (32 mils) per coat
Solids Content	By Volume 68% +/- 3%
Theoretical Coverage Rate	26.8 m ² /l at 25 microns (1091 ft ² /gal at 1.0 mils) 0.8 m ² /l at 800 microns (34 ft ² /gal at 32.0 mils) Allow for loss in mixing and application.
VOC Values	As Supplied 1 g/l (0.008 lbs/gal)
Topcoats	For interior concealed applications, topcoats are optional. For interior public areas, Perlita y Vermiculita approved topcoats are required. Firefilm A4 must be applied to the specified DFT and be dry before applying a topcoat. Contact Perlita y Vermiculita Technical Service for a complete list of approved topcoats.
Specific Gravity	1.38 ±0.02
Viscosity	150-200 Poise (Spindle 6 @ 20 rpm)

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. Contact Perlita y Vermiculita Technical Service for a complete list of approved primers.
Steel	Ensure the steel is dry and free from contact with rain or condensation during the application and drying of Firefilm A4

MIXING & THINNING

Mixing | Should be mechanically stirred prior to use.

Thinning | Firefilm A4 is supplied ready for use and must not be thinned.

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.

General | Spray equipment can be cleaned using water only.

Airless Spray | Airless spray equipment is recommended and should match these guidelines:
Operating Pressure: 2500-3000 psi (175-210 kg/cm2)
Tip Size: 19-21 thou (0.019"-0.021")
Fan Angle: 20-40°
Hose Diameter: 10 mm (3/8") (internal diameter)
Hose Length: Max. 60 metres (196.9 feet)
Filters: In-line filters not recommended

APPLICATION PROCEDURES

General | Firefilm A4 is recommended for application and use on dry protected structural steel only. If the film is allowed to get wet, it is likely to be damaged - blistering and wrinkling may occur.

Airless Spray | Firefilm A4 may be applied up to a maximum wet film thickness (WFT) of 1.2 mm (47.2 mils) in a single spray coat comprising of several quick passes. Achieving maximum loadings will depend on site conditions.
It may be possible to apply two coats of Firefilm A4 in one day particularly if the atmospheric temperature is above 20 °C (68 °F) and relative humidity below 70%. However, before doing this, ensure that the previously applied coat is dry, particularly in the web/flange junctions.

Brush & Roller | Use a "laying on" technique to avoid heavy brush marking.
Maximum wet film per coat when applied using a brush or roller is 0.6 mm (23.6 mils).
During application, measure the wet film thickness frequently with a WFT gauge to ensure the correct thickness is being applied.
In the event of over or under applications, adjustments to the loading rates of subsequent coats will be required.
A nap roller will produce a light textured finish.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	5°C (41°F)	5°C (41°F)	5°C (41°F)	0%
Maximum	35°C (95°F)	35°C (95°F)	35°C (95°F)	75%

Relative humidity should be below 80% for successful application. Steel surface temperature should be a minimum of 3 °C (5 °F) above the dew point.

CURING SCHEDULE

Surface Temp.*	Dry to Recoat
10°C (50°F)	5 Hours
20°C (68°F)	4 Hours
30°C (86°F)	3 Hours

Based on 1mm (39.4 mils) wet film thickness per coat.

These are times for a typical mid-range humidity and good air flow. Higher humidity, poor airflow or overnight condensation will all lengthen these times.

Surface must be touch dry prior to recoating. Check web-flange joints.

CLEANUP & SAFETY

Safety	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.
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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 1" (25.4 mm) 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.
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PACKAGING, HANDLING & STORAGE

Shelf Life	6 months @ 20-25 °C (68-77 °F) when stored as recommended in original unopened container
Shipping Weight (Approximate)	26.69 kg (58.8 lbs)
Storage	Store in secure, dry warehouse conditions between +5 °C (41 °F) to +35 °C (95 °F). Protect from freezing.
Packaging	25 kg (55 lbs) drum