

REC COAT 1860 & 1860s

FIRE RESISTIVE PLASTERS

DESCRIPTION

REC COAT 1860 & 1860s are single component, spray applied, mill-mixed fire resistive plasters. **REC COAT 1860 & 1860s** have approval for use on structural steel members and fluted decking to provide up to four hours of fire protection, and on flat plate cellular decking for up to three hours with mill-mixed Portland cement based cementitious spray applied fireproofing accessory product.

Note: **REC COAT 1860 & 1860s** afford the same level of the fire protection at identical protection thicknesses. By simply specifying “**REC COAT 1860**” the fireproofing subcontractor can select the product that will provide the most efficient fire protection for the specific project conditions.

FEATURES & BENEFITS

RECKON cementitious fireproofing offers many significant advantages to the architect, owner, applicator and building occupant. These include:

- Proven in-place performance
- Low in-place cost
- Fast, efficient application
- UL fire tested and factory inspected
- Building Code compliant.

TECHNICAL INFORMATION

Physical Properties	Recommended Specification	Laboratory Tested Values	Test Method
Dry density, minimum average	240 kg/dm ³	240 kg/dm ³	ASTM E605
Bond strength	200 psi (9.6 KPa)	352 psi (16.9 KPa)	ASTM E736
Compression, 10% deformation	8.3 psi (51 kPa)	32 psi (220 KPa)	ASTM E761
Air erosion	Max 0.000 g/ft ² (0.00 g/m ²)	0.000 g/ft ² (0.00 g/m ²)	ASTM E859
High velocity air erosion	No continued erosion after 4 hours	No continued erosion after 4 hours	ASTM E859
Corrosion	Does not contribute to corrosion	Does not contribute to corrosion	ASTM E937
Bond impact	No cracking, spalling or delamination	No cracking, spalling or delamination	ASTM E760
Deflection	No cracking, spalling or delamination	No cracking, spalling or delamination	ASTM E759
Resistance to mold growth	No growth after 28 days	No growth after 28 days	ASTM G21
Surface burning characteristics	Flame spread = 0 Smoke developed = 0	Flame spread = 0 Smoke developed = 0	ASTM E84
Combustibility	Less than 5 MJ/m ² total, 20 kw/m ² peak heat release	Less than 5 MJ/m ² total, 20 kw/m ² peak heat release	ASTM E1354
Impact penetration	Max 6 cm ³ abraded	3.9 cm ³	City of San Francisco
Abrasion resistance	Max 15 cm ³ abraded	8.3 cm ³	City of San Francisco

DIRECTIONS FOR USE

STEEL & CONCRETE SURFACES

a. Prior to the application of **REC COAT 1860**, an inspection shall be made to determine that all steel surfaces are acceptable to receive fireproofing. The steel shall be free of oil, grease, rolling compounds or lubricants, loose mill scale, excess rust, non compatible primer, lock down agent or any other substance that will impair proper adhesion. Where necessary, the cleaning of steel surfaces to receive fireproofing shall be the responsibility of the general

b. Contractor.

The project architect shall determine if the painted/primed structural steel to receive fireproofing has been tested in accordance with ASTM E119, to

c. Provide the required fire resistance rating.

Many Fire Resistance Designs allow the use of painted metal floor or roof-deck in place of galvanized decking. Painted decking must be UL listed in the specific fire resistance designs and must carry the UL classification marking. Consult your local RECKON sales representative for details.

d. Prior to application of **REC COAT 1860**, a bonding agent, approved by the fireproofing manufacturer, shall be applied to all concrete substrates to receive.

e. Fireproofing to the underside of roof deck assemblies shall be done only after roofing application

is complete and roof traffic has ceased.

- f. No fireproofing shall be applied prior to completion of concrete work on steel decking.
- g. Other trades shall not install ducts, piping, equipment, or other suspended items until the fireproofing is completed and inspected.
- h. Other trades shall install clips, hangers, support sleeves, and other attachments that penetrate the fireproofing, prior to application of the fireproofing.

MIXING

- a. RECKON Fireproofing shall be mixed by machine in a conventional, plaster-type mixer or a continuous mixer specifically modified for cementitious fireproofing. The mixer shall be kept clean and free of all previously mixed material. The mixer speed in a conventional mixer shall be adjusted to the lowest speed which gives adequate blending of the material and a mixer density of 40–45 pcf (640–720 kg/m³) of material.
- b. Using a suitable metering device and a conventional mixer, all water shall be first added to the mixer as the blades turn. Mixing shall continue until the mix is lump-free, with a creamy texture. All material is to be thoroughly wet. Target density of 43 ± 1 pcf (688 ± 16 kg/m³) is most desirable. Overmixing material will reduce pumping rate.

APPLICATION

- a. Application of REC COAT 1860 RECKON Fireproofing can be made in the following sequence:
 - 1. For thicknesses of approximately 1/2 in. (13 mm) or less, apply in one pass.
 - 2. For thicknesses of 5/8 in. (16 mm) or greater, apply subsequent passes after the first coat has set.
- b. mill-mixed Portland cement based cementitious spray applied fireproofing accessory product shall be applied to all cellular steel floor units with flat plate on the bottom and to roof decking where required prior to application of REC COAT 1860. mill-mixed Portland cement based cementitious spray applied fireproofing accessory product shall be applied in accordance with manufacturer's application instructions.
- c. **REC COAT 1860** Fireproofing material shall not be used if it contains partially set, frozen or caked material.
- d. The minimum average density shall be that required by the manufacturer, listed in the UL Fire Resistance Directory for each rating indicated, ICBO Evaluation Report, as required by the authority having jurisdiction, or minimum average 15 lbs/ft³ (240 kg/ m³), whichever is greater.
- e. **REC COAT 1860** shall be mixed with water at the job site.
- f. **REC COAT 1860** accelerator is to be used with REC COAT 1860 Fireproofing to enhance set characteristics and product yield. The REC COAT 1860 accelerator is injected into the REC COAT 1860 Fireproofing at the spray gun. REC COAT 1860 accelerator shall be mixed and used according to manufacturer's recommendations.
- g. REC COAT 1860 is applied directly to the steel, at various rates of application which will be job dependent, using standard plastering type equipment or continuous mixer/ pump units. A spray gun, with a properly sized orifice and spray shield and air pressure at the nozzle of approximately 20 psi (38 kPa), will provide the correct hang-ability, density and appearance. NOTE: If freshly sprayed REC COAT 1860 does not adhere properly, it is probably due to a too wet mix, poor thickness control, or an improperly cleaned substrate.

TEMPERATURE & VENTILATION

- a. An air and substrate temperature of 40°F (4.4°C) minimum shall be maintained for 24 hours prior to application, during application and for a minimum of 24 hours after application of REC COAT 1860.
- b. Provisions shall be made for ventilation to properly dry the fireproofing after application. In enclosed areas lacking natural ventilation, air circulation and ventilation must be provided to achieve a minimum total fresh air exchange rate of 4 times per hour until the material is substantially dry.

FIELD TESTS

- a. The architect will select an independent testing laboratory (for which the owner will pay) to sample and verify the thickness and density of the fireproofing in accordance with the applicable building code.
- b. The architect will select an independent testing laboratory (for which the owner will pay) to randomly sample and verify the bond strength of the fireproofing in accordance with the provisions of ASTM E736.
- c. Results of the above tests will be made available to all parties at the completion of pre-designated areas which shall have been determined at a pre job conference.

SAFETY

- a. REC COAT 1860 is slippery when wet. The general contractor and applicator shall be responsible for posting appropriate cautionary "SLIPPERY WHEN WET" signs. Signs should be posted in all areas in contact with wet fireproofing material. Anti-slip surfaces should be used on all working surfaces.
- b. Material Data Sheets for REC COAT 1860 are available on our web site at www.reckonchemicals.com or by calling our representative.
- c. Use of accelerator with REC COAT 1860s will provide rapid set but will not result in yield increase.

PACKING

REC COAT 1860 is available in 25 kg Bags.

STORAGE

All material to be used for fireproofing shall be delivered in original unopened packages bearing the name of the manufacturer, the brand and proper UL labels for fire hazard and fire resistance classifications. The material shall be kept dry until ready for use. Packages of material shall be kept off the ground, under cover and away from sweating walls and other damp surfaces. All bags that have been exposed to water before use shall be discarded. Stock of material is to be rotated and used before its expiration date.

WARRANTY: The Reckon Chemicals (Pvt.) Ltd. (Reckon) solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Reckon, no other representations or statements made by Reckon or its representatives, in writing or orally, shall alter this warranty. Reckon MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Reckon product fails to conform with this warranty, Reckon will replace the product to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Reckon does not authorize anyone on its behalf to make any written or oral statements which in any way alter Reckon's installation information or instructions in its product literature or on its packaging labels. Any installation of Reckon products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Reckon's products for the Buyer's intended purposes.

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