

CAFCO[®] BLAZE SHIELD[®] II – Superior In-Place Product Performance

CAFCO BLAZE-SHIELD II is one of the most widely used Spray-Applied Fire Resistive Materials (SFRMs) for the protection of structural steel in commercial construction with over 40 years of time tested in-place performance. Its numerous application advantages, physical characteristics features and cost benefits have resulted in its specification and use on one of the largest spray-applied fireproofing projects of the decade, the San Francisco Airport Expansion.

The original expansion and current renovation of the San Francisco Airport was completed in several phases consisting of Boarding Area A, Boarding Area G, a new International terminal and Terminal D (2009). In total, approximately 200,000 bags of CAFCO BLAZE-SHIELD II have been utilized to protect the structural steel beams, columns and decking throughout the three phases of the project.

On a project of this size, sequencing and scheduling is a very important factor to all parties involved in the construction process. The application of CAFCO BLAZE-SHIELD II not only helped to maintain construction schedules but put the project ahead of schedule. This was an even more impressive feat due to the adverse weather conditions caused by “El Niño” during the original expansion that had plagued the San Francisco area during several months of the project. According to the SFA official weather report, during the months of January and February (1998) it rained 53 of 59 days. CAFCO BLAZE-SHIELD II is composed of a mineral wool aggregate and cement binders which enables it to withstand adverse environmental conditions. This ability to standup to various conditions has resulted in the product being the only commercial density SFRM that is classified and listed by Underwriters Laboratories (UL) as “Investigated for Exterior Use”. The benefits and advantages of using a cement based spray-applied fire resistive material should therefore remain an important consideration that should not be overlooked when specifying materials. One of many impressed by the performance of CAFCO BLAZE-SHIELD II was Don Gold, Project Manager for Tutor Saliba, the General Contractor on both the Boarding Area G and International Terminal phases. He stated, “CAFCO BLAZE-SHIELD II has proven to be a durable product that has withstood the forces of El Niño”.

“As I understand, if it were not for the cement basis of CAFCO BLAZE-SHIELD II we would have experienced substantial wash off of the fireproofing during the heavy



San Francisco Airport Expansion

rains dumped upon us by El Niño. Other products that were considered for the project were all plaster based and certainly would not have held up to the open construction with over 60 inches of rain that has fallen in San Francisco, during the construction period to date. This is obviously the main factor in us being ahead of schedule and not faced with the cost and time penalty of reinspection and reinstallation of a less durable product”, stated S.R. Murphy, President of Atlas Plastering.

In addition to its ability to withstand extreme weather conditions during the construction phase, CAFCO BLAZE-SHIELD II is installed in a more cost effective manner than other SFRMs due to its “one step application”. There is no need for pre-mixing and the material is most often applied in a single pass. This quick and easy application is appealing to contractors who install spray-applied fireproofing and was the reason it was selected for the renovation of SFA in 2009. According to Ron Flake, who is Vice President of



Custom Spray Systems, Inc. and the CAFCO applicator on the San Francisco Airport Project, *“On a project of this size, the cost advantages of applying a dry mix product like CAFCO® BLAZE-SHIELD® II cannot be overlooked. The ability to achieve the required thickness of fireproofing in a single pass allowed for the quickest possible installation. Just as important was the product’s in-place performance which to date had passed every density (15 pcf) and bond-strength (200 psf) test performed. Both of these things have kept the project ahead of schedule which is very important on a project of this size.”*

This project has also posed other demands on the spray-applied fireproofing due to its unique seismic conditions. With an architecturally designed foundation that can move 20 inches in any direction and a “cruciform” column structure, the flexibility of CAFCO BLAZE-SHIELD II was needed to withstand these conditions. Other areas of the project called for a high density spray-applied fire resistive material. In these areas, CAFCO 800 (original 1998 project) and CAFCO® FENDOLITE® M-II (2009 renovation) were used. CAFCO FENDOLITE M-II has a hard, durable surface which enables its application in areas which may be subjected to higher levels of physical abuse such as mechanical rooms, storage areas, etc. Utilized as a topcoat material over lower density products, CAFCO FENDOLITE M-II is ideal for applications indirectly exposed to weather or anywhere a rigid, tough, cement-like finish is desired. Over 20,000 bags of Isolatak high-density material have been installed on the San Francisco International Airport since 1998.

The bottom line is that CAFCO has a complete product line which provides solutions for all passive fire protection needs. This includes CAFCO BLAZE-SHIELD II, a tough, durable spray-applied fire resistive material that will not only save you time and money but will also give you confidence that it will withstand the conditions faced throughout the entire construction phase.



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Brand

ISOLATEK INTERNATIONAL® provides passive fireproofing materials under the CAFCO® and FENDOLITE® trademark throughout the Americas and other markets and under the ISOLATEK® trademark throughout the world.

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