Water Seal

FIRE PROOFING DIVISION

FIRE PROOFING SPECIALIST

UNITED ARAB EMIRATES
MINISTRY OF INTERIOR
GEN. COMMAND OF CIVIL DEFENSE
DIRECTORATE GEN. OF DUBAI CIVIL DEFENSE

PRODUCT CONFORMITY
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Certificate No. CL17020464

ISO 9001 2015 CERTIFIED

WATER SEAL

Establish in early 90's as specialized contractor for specific construction related services. Within two decades it has become one of the top ranking companies in UAE. Water Seal has grown to group of companies with access to the advanced computerized design & state of engineering art facilities ensuring commercial, technical approach to various types of civil activities.

Water Seal Philosophy

The corporate philosophy of the company is based on quality services for quality job with a clear understanding that client requirements tend to vary.
Water Seal® approaches that project with an utmost fexibility. The client is assisted at every stage with tailor made solution using wherever possible, readily available products.

The underlying principle has always been to develop a lasting business relationship that is mutually benefecial. This approach is the cornerstone of the Water Seal® success in the region, resulting in a reputation of impeccable quality backed by unmatched service.

Water Seal Mission

The Mission of Water Seal is to build on its reputation for integrity, excellence, experience and leadership as the finest solution provider by:

1. Incorporating most advance technology and techniques available in the industry in developing and delivering solutions
2. Continuously improving the quality of work and exceed each client's expectation
3. Maintaining our dedication to the highest moral principles
4. Providing our people with a challenging, secure, and safe environment in which to achieve personal career goals.

ABOUT FIRE PROOFING

Fireproofing – A passive fire protection measure – refers to the act of making structures more resistant to fire or the act of applying such materials. In simple terms, Fireproofing is the application of fire retardant cementitious, fibrous, or intumescent products to bare, unprotected structural steel beams, columns or decks of a building. A structural fire can exceed temperatures of 800°C or higher, depending on the severity of the conditions. Temperatures of around 550°C will cause a decline in the load-bearing properties of structural steel. The steel will lose its yield strength and buckle, causing it to bend, twist and ultimately collapse.

Fireproofing provides resistance to fire so that critical steel structures remain standing and critical control systems continue to operate in case of fire until the fire is brought under control. Fireproofing, is used to delay (or even prevent) the failure of steel structures that are exposed to the high temperatures found during a fire. Structural fire protection ensures the stability of structural elements (such as steel beams/columns or timber beams/columns) in a building in case of fire. This is reached by applying adequate products onto the structural element, such as boards, paints or sprays.

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RANGES OF FIRE PROOFING

Cementitious Fireproofing Coatings

Cementitious material contains binders of gypsum or cement that form a strong and durable coating when mixed with water.Due to high binder content, cementitious materials exhibit higher bond strengths than other products such as sprayed fibre meaning they bond better with the substrate. Cementitious material is produced by mixing it with water to create a uniform slurry mix that is then pumped to a nozzle and sprayed directly onto the substrate. Cementitious Fireproofing Coatings only used in unexposed steel structure and where surface finish not required.

- With Vermiculate Material over standard or built up sections.
- Application for 30/60/90/120/180 min Fire Rating.
- Application with thickness as per UL. 263 or BS 476 certifier test norms.
- Application for Hydrocarbon site as per UL 1709.
- Application with surface preparation, Priming.

Cementitious Coating having 3 Categories:

A. Low density Wet Mix Spray-Applied Fire Resistive Material (SFRM): Commonly used in commercial & Residential Buildings.
B. Medium density Wet Mix Spray-Applied Fire Resistive Material (SFRM): Commonly used in Industries.
C. High density Wet Mix Spray-Applied Fire Resistive Material (SFRM): Commonly used in Oilfield Industries.

Cementitious Fireproof Coating

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RANGES OF FIRE PROOFING

Intumescent Fireproofing Coatings.

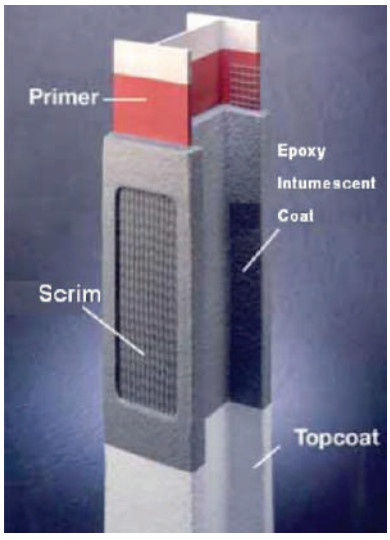
Intumescent coatings, often referred to as intumescent paint, are used in buildings as a passive fire resistance measure. They can be applied to structural steel members which are exposed. The advantage of intumescent coating is we can achieve smooth surface finish & top coat can be applied as per the requirements.

The key feature of intumescents is that they expand significantly when exposed to high temperatures, such as those found in a fire. Some intumescent products can expand to more than 100-times the original thickness. As the product expands it becomes much less dense, which makes it act as in insulator that keeps the high temperatures away from structural members or protected openings.

Intumescent Fireproofing Coatings having 3 Categories:

A. Water Based Intumescent Coating.
B. Solvent Based Intumescent Coating.
C. Epoxy Intumescent Coating. Commonly used in Oil Field for long term corrosion and fire protection in a single system & can be used for pool fires up to four hours rating.

Water/Solvent Based Intumescent Coating



Epoxy Intumescent Coating

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RANGES OF FIRE PROOFING

Rigid Board Fireproofing

Rigid Board Fire Resistive Materials is a rigid, mineral wool board, calcium silicate boards that is mechanically fastened to beams, columns and metal decking to meet hourly fire rating requirements in accordance with ASTM E119/UL 263.

Board Fire Protection is typically more expensive and slower to install but in certain conditions it provides a good alternative to other SFRM's. When spraying is not a practical approach to providing fire protection due to out of sequence construction, space constraints, temperature or time limitations, Fire Resistive Board can also be considered for passive fire protection. Thickness of Board depends upon the profile of steel section.

OFFERING COMPREHENSIVE FIREPROOFING SOLUTIONS

Construction Sector Fireproofing

Oil Field/Petrochemical Sector Fireproofing

Tunnel Fireproofing

Water Seal

FIRE PROOFING DIVISION

Fire Proofing

Shotcrete/
Guniting

Roofing &
Waterproofing

Re-waterproofing/
Refurbishment

Modern Combo
Roofing

Soil
Stabilization

Floor
Screeds

Structural
Strengthening

Car Parking &
Floor Coating

Steel
Fabrication

Crack
Injection

Fabric Shade
Structure

RANGE OF SPECIALIZED SERVICES

Fire Proofing

Shotcrete / Guniting

Modern Combo Roofing System

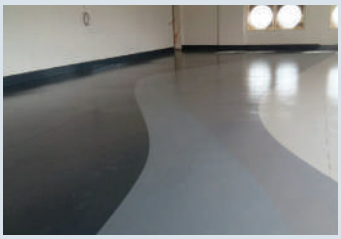
Basement Waterproofing

Polyurea Waterproofing

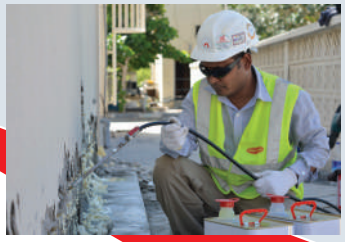
Roof Waterproofing

Geo Lining

Clay Tile Roofing

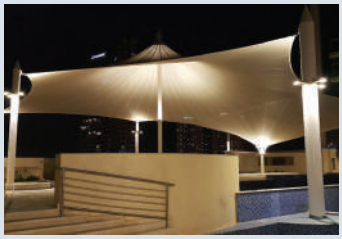


Floor Coatings



Crack Injection

Structural Strengthening



Fabric Shade Structure

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