Fire Protective Coatings for steel, wood and cables.

Saving lives and preserving material values.

Saving time for more safety!
Renitherm® PMS + PMA protect steelwork.

In the event of fire, a steel structure does not burn. Under influence of the heat, it starts to lose its stability already after a few minutes, which could eventually lead to the collapse of the entire building. Therefore, steel must be prevented from reaching its critical temperature of 500 °C under full load for as long as possible. The aim is to gain time to save people and extinguish the fire. With Renitherm® PMS + PMA, steel can be protected effectively.

Renitherm® PMW protects woodwork.

Timber is easily flammable and therefore at risk from destruction by heat and flames. In fact, timber seems to feed the fire, enabling it to spread with devastating effect.

With Renitherm® PMW, timber can be protected effectively. This special fire protective coating has been developed to verifiably reduce the flammability of timber, thus preventing or retarding the spreading of the fire.
The primary goal of Renitherm® fire protection coatings is to maintain the resistance of the load-carrying building structures as long as possible so that people can escape from the danger zone or be rescued. Time is gained to extinguish the fire and keep the resulting damage to a minimum.

Gain valuable additional time with Renitherm® fire protection coating. The coating increases the crucial time before the critical temperature is reached at which even the strongest steel becomes soft, loosing its capacity to support loads. Applied on timber and electrical cables, the coating postpones the point in time when the materials start to burn.

A fire resistance time of up to 120 minutes is achieved by application of thin coatings. This is the result of many years of experience, research and development.

Renitherm® PMC protects electric cables.

Renitherm® PMC offers protection for cable sheathings with benefits in terms of economic efficiency and environmental compatibility. Due to their specific material properties, almost all cable sheathings pose a high fire risk. Especially in buildings with a high level of technology, e.g. power stations, industrial buildings, hospitals, administrative buildings etc., it is necessary to protect all wiring against fire.
Intumescent coatings are the most effective means of providing fire protection to structural steel columns with a minimum loss of floor space. They may also be used where the structure is exposed for aesthetic reasons or for economy and speed of construction.

The partial enclosing of a steel column within either external or internal walls will reduce the steel’s exposure to heat and thereby reduce the thickness of coating necessary to achieve a given fire rating.

Renitherm® fire protective coatings with their extremely thin layers cover steelwork like a skin. They are therefore ideal for accentuating the structural form even down to the very last difficult details. And with the range of colours of the Renitherm® topcoats, impressive highlights can be created.
The way Renitherm® functions is as ingenious as it is simple. The thin coating of fireproofing agents forms an insulating shell. Under the influence of fire or high temperatures, it expands, forming a dense, non-flammable foam layer of several centimetres thickness. This reaction takes place at temperatures at which timber is not yet destroyed. Thereby, a substantial part of the heat is withdrawn, which absorbs energy from the fire. The resulting foam layer acts as insulation against the heat, retarding the penetration of the heat flow to the material core. This microporous carbon mass stops the oxygen from reaching the combustible surface of the timber, thus preventing the flames from spreading, even on large-surface logs. This efficient protective film is easily applied by spray gun or brush. As a transparent varnish, it conserves the natural character of the wood, while the pigmented version helps to create harmonious colour effects.

The thin Renitherm® for steel surfaces reacts under the effect of heat. An endothermic reaction of the fire protection coating causes a very thick insulating layer to form on the steel surface. This highly efficient protection postpones the time when the steel reaches its critical temperature.

Up to 120 minutes fire resistance time are achieved by applying very thin coatings. Under extremely high temperatures, Renitherm® coatings expand to form a foam barrier of 30 - 50 times to its original thickness.
Steel and fire protection – a challenge which has become increas­ingly important over the last 30 years. In the construction of modern buildings, great store is set by an attractive architecture with exposed filigree steel profiles. Structural members such as columns, girders and framework made of steel create a fascinat­ing combination of functionality, power and elegance. But the heat of fire puts all this at risk.

Renitherm® was developed for steel structures to meet the following specific criteria:

- high user comfort
- clean surfaces
- thin layers
- fire resistance time of 30 to 120 minutes according to international standards
- available as water-soluble or solvent-based variant
- free of halogens
- for indoor and outdoor use
- for I-sections and hollow sections
- for on-site or off-site application
- verifiably non-corroding
- for optional use of top coats

Perfectly planned for more safety.
This is a reliable product „Made in Germany“ which meets all requirements specified in the relevant safety standards and regulations. This goes for all aspects, from the raw material over time-proven formulations to reliable logistics.
AUDAX offers an extensive range of Renitherm® fire protection coatings for steel, timber and cables produced according to our own formulations. Our products are in compliance with national and international standards for approved fire protection coatings and applications on open and closed steel sections indoors and out of doors. Fire protection coatings by Renitherm® are safety products intended to save lives, preserve material values, and harmonize safety engineering aspects with architectonic considerations.

Based on many years of experience in construction chemistry, AUDAX focuses on individual solutions for the building industry. Under the brand name of Renitherm®, we offer innovative paints which form layers of foam to protect steel, timber, and electrical cables. We carry out extensive tests and validations to guarantee comprehensive fire protection for buildings in accordance with clearly defined criteria. Manufactured pursuant to German industrial standards, our products are developed and produced in Germany and bear the certified proof of origin „Made in Germany“.
When developing fire protection coatings for passive structural fire protection applications, Renitherm® focuses on environmental compatibility and sustainability. The „Green Building product group“ comprises a list of all non-VOC fire protection products approved for use as materials in ecological construction because their content of volatile organic compounds (VOC) is below detection threshold. This means that these products meet the requirements of the „Approval guidelines for the health-related evaluation of indoor construction products“ in connection with the LCI values specified by the Committee for Health-related Evaluation of Building Products (Ausschuss zur gesundheitlichen Bewertung von Bauprodukten - AgBB); as such, they are also recommended for use in public buildings which must comply with the criteria of the evaluation system „Sustainable construction for federal buildings“ of the German Federal Ministry for Transport, Building and Urban Development.

Renitherm® Ecological and environmentally friendly in manufacture and application

- Environmentally friendly, since water-based
- Non-VOC, free of halogens, APEO, borates, fibres, and softening agents
- Approved according to international standards, f.e. BS476
- Application focussed on:
  - Fire resistance times of 60 to 120 minutes
- Non-VOC acc. to ISO 11890-2, LEED confirmation
AUDAX is headquartered in Calw in the Black Forest, birth place of the famous writer Hermann Hesse.

Our warehouse covers an area of more than 1,000 sqm. From here, our logistics dispatches our products to customers all over the world.

Our highly experienced Managing Director Günther Keck has been leading the company for more than 30 years.
AUDAX customers benefit from our experience and know-how gained during more than 30 years of work in the construction industry. We offer on-site advice as well as project management by qualified personnel. We provide state-of-the-art user training to guarantee consistently high quality standards. Our technical experts contribute their profound knowledge to the development of individual solutions for fire protection requirements and the respective application processes.

AUDAX fully complies with the requirements of standard EN ISO 9001. This is another proof that Renitherm® stands for quality, reliability and safety.
Renitherm® fire protection coatings are used all over the world. Wherever the structural requirements specify demanding safety standards, Renitherm® comes into play. Customers from all over the world trust the Renitherm® protection system for their construction projects.

Reference objects where AUDAX fire protection coatings have been used.

1. Food Court Burjuman Shopping Mall, Dubai, 20,000 sqm
2. Hangar New Doha International Airport, 15,000 sqm
3. Burjuman Hotel, Dubai, 20,000 sqm
4. Baltic Pearl, St. Petersburg
5. Silicone Oasis Free Zone Headquarter, Dubai
6. Skywalk Marriott, Dubai
7. Mall of Emirates, Ski Dubai
8. Dubai Mall

For more examples, go to: www.renitherm.de and www.audax.de
AUDAX - Safety “Made in Germany”

Many buildings all over the world are have been equipped with AUDAX fire protection coatings.

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We are members of:

IGSB
ASFP

Saving time for more safety!