

**insul
ation**

NewtOn
fire retardant bulging coatings



WE PRODUCE
UNIQUE COATINGS

Advanced
Russian
Technology

FIREPROOF MATERIAL

www.NewtOnCoating.com

Material Story

Today, many builders, energy, machinery manufacturers, engineers and private customers face the obvious challenge of protecting their facilities and property from exposure to open fire and high temperatures.

Unfortunately, history knows a huge number of examples when the lack of samva of the necessary flame retardant materials led to the saddest ending. This applies to the most diverse sectors of our life, from a private house and frame housing construction to steel metal pre-fabricated buildings and industrial workshops. The fire and the subsequent open or closed fire almost instantly begin to affect the facing materials, bearing support, floor beams, with both metal and wood. As a result - the rapid spread of fire and the death of the structure. The rapid speed of arrival of fire brigades is not always able to resolve the issue of building collapse and effective evacuation of victims.

The result was the creation of the first prototype of a liquid ceramic thermal insulation coating. A lot of time passed, the formula and composition of the material were improved, and as a result a unique product with excellent sound, thermal and thermal insulation properties was obtained.

Successfully coping with the tasks of preserving your own property, buildings, houses, workshops, hangars and buildings is managed by one of the most effective and successfully used materials - "NewtOn Fireproof". The economic benefit from its use is enormous, and the method of its application is accessible and convenient for almost everyone. Professional to be absolutely not required.

The advantages of using the material are very obvious:

- 1) Protection of wooden buildings and objects from prefabricated panels, when painting both inside and outside. The paint is safe for humans, because it has a water base, in which harmful organic compounds are completely absent.
- 2) Protection of metal hangars, industrial premises, metal tanks, industrial steel structures in places of high and medium risk.
- 3) Protection of cables, introductory groups of energy cables and power conductors from both external fire and overheating of the cable, preventing the spread of burning braid.
- 4) A significant increase in the fire safety of objects of social importance and cultural and mass leisure. Increasing the time of evacuation to 60 or even 120 minutes
- 5) Protection of classic insulation and panels, finishing materials and other protective coatings from the effects of fire, not allowing it to spread, significantly reducing the risk of civilian and other losses during a fire situation.
- 6) Protection of energy equipment in transport, industrial and civil objects



Safety is not expensive, but its absence and non-observance of elementary safety standards leads to very expensive losses that exceed the costs of security hundreds and thousands of times ...

Where Applied



NUCLEAR
ENERGETICS



OIL AND GAS
INDUSTRY



CHEMICAL
INDUSTRY



PETROCHEMICAL
INDUSTRY



AGRICULTURE



METALLURGY



MILITARY
INDUSTRY



RAILWAY
INDUSTRY



ENERGETIC
COMPLEX



BUILDING



SPORTS
CONSTRUCTIONS



SHIPBUILDING



Power industry

Active cable protection.

The material is perfectly applied to the wires of any kind and type using a roller, brush or airless spray apparatus. At the same time, regardless of the location of the cable - the effectiveness of the application always remains maximum.

The basic principle of protection of this type of objects is to prevent cable damage under external exposure to flame and high temperatures, in order to maintain its efficiency for as long as possible. Also, active protection from overheating of the cable and the ignition of its braid, due to the formation and growth of the coke protective cap on the wire itself - in fact, before breaking and disconnecting the cable from the power supply.

The coating contains flame retardant additives, flame retardant components, gas formers and stabilizers.



Предел огнестойкости «NewtOn Fireproof» (R45, R60, R90, R120) зависит от толщины покрытия. Данные по толщинам приведены в технической таблице в конце каталога. Так же там представлены нормы расхода материала при соответствующих толщинах металлических конструкций.

Building

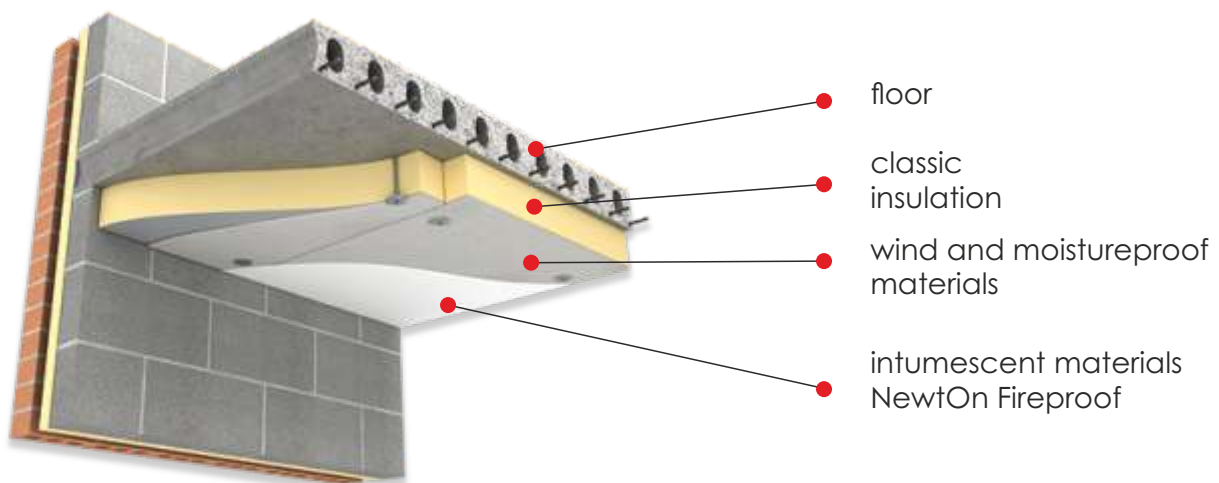


Metal constructions are easy to assemble. With a small weight, they have a high carrying capacity. Steel structures - the best choice in the construction of air terminals, stadiums, exhibition halls. In the construction of facilities where it is possible to accumulate a large number of people, special attention should be paid to fire safety measures. Application of refractory paint:

- 1) Protects the steel frame from high temperatures above 500 ° C, increases the safety of the building of steel structures.
- 2) Prevents expansion and lengthening of metal structures when exposed to fire and high temperatures.
- 3) Increases the stability of steel structures, increases the time of safe evacuation.

Also, the material perfectly proved itself as protection on wooden structures inside and outside, on prefabricated houses from SIP panels, as well as protection of heat-insulating and other finishing and enclosing structures.

An example of fire protection classic insulation system floor construction on underground parking lots and grounds



the use of the material avoids the spread of fire

Principle of operation

Why is fire protection with intumescent formulations so effective? The fact is that expanding cover simultaneously perform several important functions. What happens when heated?

1) The expansion temperature is 180-220 ° C, may vary depending on the manufacturer. At the moment of heating, the following processes enter into reaction.

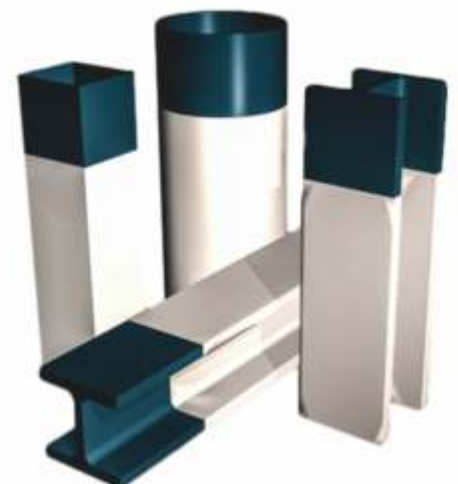
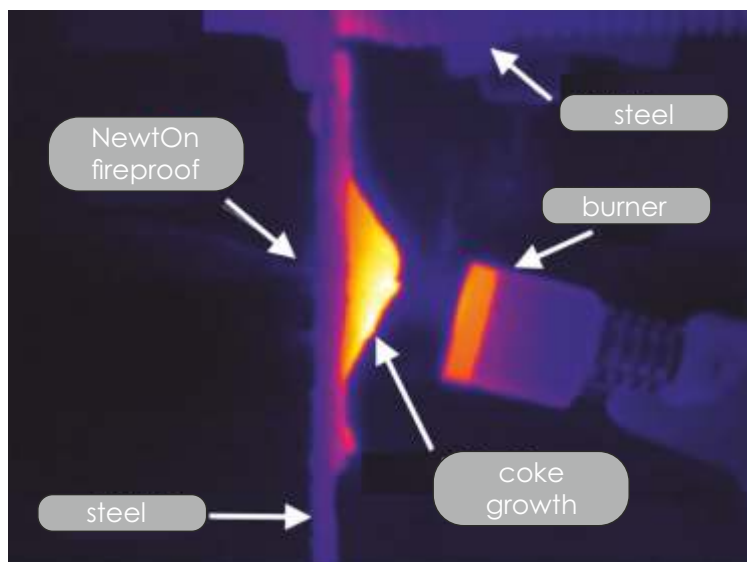
2) The top layer of intumescent coating cracks. Pores are formed through which the transforming dry residue begins to flow. In this case, the initial thickness increases from five to forty times.

3) As a result of the reaction, the intumescent refractory composition releases a large amount of coke, which is an excellent thermal insulation material.

4) Additionally, at the time of the increase, a large amount of inert gas is released, which also prevents combustion.

The composition of the intumescent composition often includes bioprotection, which makes it possible to prevent rotting or rust formation.

Our newest intumescent inorganic compounds for fire protection can easily withstand temperature extremes and negative atmospheric effects. Paint can be applied using airless spraying machines, or manually with a roller or brush.



Technical specifications

The thickness of the metal, mm	fire resistance							
	45minutes		60minutes		90minutes		120minutes	
	thickness mm	consumption, kg / m	thickness mm	consumption, kg / m	thickness mm	consumption, kg / m	thickness mm	consumption, kg / m
2,4	1,2	1,69	1,53	2,15	-	-	-	-
2,6	1,21	1,8	1,56	2,29	-	-	-	-
2,8	1,18	1,74	1,51	2,29	-	-	-	-
3	1,14	1,69	1,47	2,16	-	-	-	-
3,2	1,11	1,64	1,42	2,09	-	-	-	-
3,4	1,07	1,59	1,38	2,03	2	2,82	-	-
3,6	1,04	1,53	1,34	1,96	2,26	3,33	-	-
3,8	1	1,48	1,29	1,9	2,21	3,27	-	-
4	0,97	1,43	1,25	1,83	2,17	3,2	-	-
4,2	0,93	1,37	1,2	1,77	2,12	3,14	-	-
4,4	0,9	1,32	1,16	1,7	2,08	3,07	-	-
4,6	0,86	1,21	1,07	1,57	1,99	2,94	-	-
4,8	0,83	1,21	1,07	1,57	1,99	2,94	-	-
5	0,79	1,16	1,06	1,51	1,94	2,87	-	-
5,2	0,76	1,11	0,98	1,44	1,9	2,81	-	-
5,4	0,72	1,06	0,94	1,38	1,85	2,74	-	-
5,6	0,69	1	0,89	1,31	1,81	2,68	-	-
5,8	0,62	0,87	0,8	1,14	1,76	2,61	-	-
6	0,65	0,95	0,85	1,25	1,72	2,54	-	-
6,2	0,65	0,95	0,85	1,25	1,67	2,48	-	-
6,4	0,65	0,95	0,85	1,25	1,63	2,41	-	-
6,6	0,65	0,95	0,85	1,25	1,58	2,35	-	-
6,8	0,65	0,95	0,85	1,25	1,49	2,22	-	-
7	0,65	0,95	0,85	1,25	1,49	2,22	-	-
7.2 or more	0,65	0,95	0,85	1,25	1,3	1,83	2,3	3,2



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THANK YOU

FOR YOUR ATTENTION

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