The Applicant has found that this disadvantage may be overcome by adding, to the composition of a magnesia cement containing any kind of magnesia, quick and-/or slaked lime as a setting accelerator.

This is represented in Example XIV below:

magnesia cement (magnesium chloride and/or sulphate with added magnesia):	72%
perlite and/or vermiculite and/or expanded	15%
glass spheres and/or expanded polystyrene:	15%
carbonaceous materials (wood flour or the like):	3%
fluxes (fluorspar and/or colemanite):	5%
quick and/or slaked lime:	5%

A composition of this kind begins to set about 15 minutes.

Additionnal examples are given hereafter:

EXAMPLES XV (a) TO (f)

Coating having good mechanical resistance, insulating and fire-proof properties

	(a)	(b)	(c)	(d)	(e)	(f)
Rock-wool fibers weight %	10	25	25	30	40	50
Cement weight %	55	50	50	60	40	30
Oil weight %	2	3	2	2	2	2
trisodium phosphate weight %	20	10	12	8	5	10
perlite weight %	8	3	8	0	12	8
vermiculite weight %	5	7	3	0	3	0
kaolin weight %	0	2	1	0	0	0

EXEMPLES XVI (a) TO (c)

Coating having good insulating, acoustic and fire-proof properties

	(a)	(b)	(c)
rock-wool fibers weight %	66.4	71.4	80
cement weight %	20.7	22.1	11
oil weight %	2.5	1.5	1
trisodium phosphate weight %	10.4	5	8

EXAMPLES XVII (a) TO (e)

Coating relatively hard and having excellent fire-proof properties

	(a)	(b)	(c)	(d)	(e)
cement weight %	57	80	55	57	60
trisodium phosphate weight %	15	5	20	15	10
oil weight %	0	0	0	0	3
vermiculite weight %	15	5	12	22.5	8
perlite weight %	8	8	8	0	13
kaolin weight %	1	1		1	1
polyvinyl acetate weight %	0	0	0	2.5	2
sugar weight %	2	1	2	2	3
paper paste weight %	0	0	2	0	0

The compositions of examples XV to XVII may comprise less than 15% of conventional adjuvants, cement-setting retardants or accelerators, fluidifiers, plasticizers, air driving agents, anti-freeze agents, hydrofuge agents, stripping products, surface hardeners and mixtures thereof selected among the group comprising carbonates, aluminates, sodium or potassium sulfate, chlorides, boron compounds, water, soluble lithium salts, polyamino-carboxylic acids, and alkaline salts thereof, chalk, sugars, lignosulfonates, gluconates, wood-resins, calcium ligno sulfonate as fluidifier, bentonite and kieselguhr as plasticizer.

The amount of the above adjuvants in the composition depends on the climatic conditions of the application by projection of the composition on the support to be coated.

The weight percentage of the trisodic phosphate in the composition may be comprised between 5 to 30%.

Experience has shown that if such percentage is lower than 5%, the fire-proof properties of the coating are substantially the same as those of a coating free from trisodium phosphate. Furthermore, in certain cases, it has been ascertained that a low percentage of trisodium phosphate imparts to the coating fire-proof properties which are slightly inferior to these of a coating free from trisodium phosphate. When the percentage of trisodium phosphate is higher than 30%, fissures are created in the coating when exposed to fire. These fissures are caused by the too important amount of water released from the coating under the action of the fire.

The hydrated trisodium phosphate used in the present invention, ordinarily crystallizes with a maximum of 12 molecules of water. Certain crystalline forms of trisodium phosphate have less than 12 molecules of water. Such crystalline forms may also be used in the composition contemplated by the present invention but with weight percentages which are substantially higher than these disclosed in the present specification.

We claim:

1. A coating for protecting structures against fire and heat, containing by weight percent

a cement selected from the group consisting of aluminous and Portland cements and mixtures thereof:	10 to 80%
hydrated trisodium phosphate ($Na_3PO_4.12H_2O$):	5 to 20%.

2. A coating as claimed in claim **1**, containing also a small but effective amount of a flux selected from the group consisting of calcium borate and fluorspar and mixtures thereof, said amount being effective to assure superficial sintering of the coating at a temperature between 850° to 900° C.

3. A coating according to claim **1**, further comprising a substantial amount less than 80% by weight of inorganic refractory or insulating particles or fibers or mixtures thereof.

4. A coating according to claim **1**, further comprising a substantial amount less than 40% by weight of organic materials in the form of particles or fibers.

* * * * *