CLAIMS

1. Plaster-based composition, characterized in that it comprises from 0.1 to 10 wt% of particles of boehmite of size below 950 nm and/or of aluminium trihydroxide of size below 950 nm~~nanometric boehmite and/or nanometric aluminium trihydroxide~~.

2. Plaster-based composition according to Claim 1, characterized in that it comprises:

- from 55 to 99.9 wt% of plaster~~,~~

~~- from 0.1 to 10 wt% of particles of boehmite and/or of aluminium trihydroxide of size below 950 nm~~.

3. Plaster-based composition according to one of Claims 1 or 2, characterized in that it further comprises:

- from 0 to 10% of at least one additive.

4. Plaster-based composition according to one of Claims 1 to 3, characterized in that the size of the particles of ~~nanometric~~ boehmite and/or of ~~nanometric~~ aluminium trihydroxide is below 750 nm, notably below 500 nm, and more particularly below 400 nanometres, and is advantageously above 20 nanometres.

5. Plaster-based composition according to one of Claims 1 to 4, characterized in that the form factor of the particles of ~~nanometric~~ boehmite and/or of ~~nanometric~~ aluminium trihydroxide is below 15, in particular below 10, this factor also preferably being greater than 2, notably greater than 3.

6. Plaster-based composition according to one of Claims 1 to 5, characterized in that the particles of ~~nanometric~~ boehmite and/or of ~~nanometric~~ aluminium trihydroxide are in the form of small plates of roughly parallelepipedal shape.

7. Plaster-based composition according to one of Claims 1 to 6, characterized in that it further comprises vermiculite and/or mineral and/or refractory fibres.

8. Plaster-based composition according to one of Claims 1 to 7, characterized in that the ~~nanometric~~ boehmite and/or ~~nanometric~~ aluminium trihydroxide is incorporated in the composition in the form of a colloidal suspension or in the form of powder.

9. Use of ~~nanometric~~ boehmite of size below 950 nm and/or of ~~nanometric~~ aluminium trihydroxide of size below 950 nm, in particular of a composition according to one of Claims 1 to 8, for manufacturing a product, notably based on plaster, for example moulded or extruded, and advantageously fire-resistant or fireproofed, in particular for manufacturing a plaster tile or a plasterboard or a joint.

10. Method of manufacturing an element of construction, in particular a board, according to which a plaster-based composition comprising ~~nanometric~~ boehmite of size below 950 nm and/or ~~nanometric~~ aluminium trihydroxide of size below 950 nm is prepared by mixing, and then said composition is formed, in particular by extrusion and/or moulding, before optional drying.

11. Method of manufacturing an element of construction according to Claim 10, comprising the following steps:

- preparing a paste by mixing the various constituents of the plaster composition;

- depositing this paste on a reinforcing material or casting in a mould,

- depositing a reinforcing material on the paste,

- optional drying.

12. Method according to one of Claims 10 or 11, characterized in that the ~~nanometric~~ boehmite and/or ~~nanometric~~ aluminium trihydroxide is incorporated in the composition in the form of colloidal suspension or in the form of powder.

13. Method of fireproofing a product formed from a plaster-based composition, in which ~~nanometric~~ boehmite of size below 950 nm and/or ~~nanometric~~ aluminium trihydroxide of size below 950 nm is added to the plaster-based composition.

14. Element of construction, in particular board or joint, obtained from a composition according to one of Claims 1 to 8 and/or obtained by the method according to one of Claims 10 to 13.