Claims

1. A method of producing a water-resistant gypsum product, in which the product is produced from a settable aqueous calcium sulphate dispersion having a water to solids ratio of less than 0.4 to 1, the dispersion having distributed therethrough lightweight hollow bodies having water-impervious surfaces; and a hydratable cement which is capable of hydration in the presence of the calcium sulphate dispersion, the hydratable cement being reactive with excess water in the dispersion, wherein the hydratable cement is present in an amount of 5 to 15%, based on the weight of hydraulic powder.

2. A method according to claim 1, wherein the hydratable cement comprises calcium sulpho aluminate.

3. A method according to claim 1 or 2, wherein the hollow bodies are of expanded polystyrene.

4. A method according to any of claims 1 to 3, wherein the hollow bodies are present in an amount of 0.5 to 2% by weight, based on the weight of hydraulic powder.

5. A method according to any of claims 1 to 4, wherein the dispersion contains an amphiphilic compound.

6. A method according to claim 5, wherein the amphiphilic compound is a soap.

7. A method according to any of claims 1 to 6, wherein the dispersion contains a water repellent agent that cures to form a hydrophobic silicone resin in an alkaline environment.

8. A method according to the invention, wherein the dispersion further contains glass fibre reinforcement.

9. A method according to any of claims 1 to 8, wherein the gypsum product has surface reinforcement.

10. A method according to any of claims 1 to 9, wherein the gypsum product is produced without externally applied heating.

CLAIMS

1. A method of producing a water-resistant gypsum product, in which the product is produced from a settable aqueous calcium sulphate dispersion having a water to solids ratio of less than 0.4 to 1, the dispersion having distributed therethrough lightweight hollow bodies having water-impervious surfaces; and a hydratable cement which is capable of hydration in the presence of the calcium sulphate dispersion, the hydratable cement being reactive with excess water in the dispersion, wherein the hydratable cement is present in an amount of 5 to 15%, based on the weight of hydraulic powder.

2. A method according to Claim 1, in which the hydratable cement is present in an amount of 8 to 12%, based on the weight of hydraulic powder.

3. A method according to Claim 1 or Claim 2, in which the hydratable cement comprises calcium sulpho aluminate.

4. A method according to Claim 1, 2 or 3, in which the hollow bodies are of expanded polystyrene.

5. A method according to any of Claims 1 to 4, in which the hollow bodies are present in an amount of 0.5 to 2% by weight, based on the weight of hydraulic powder.

6. A method according to any of Claims 1 to 5, in which the dispersion contains an amphiphilic compound.

7. A method according to Claim 6, in which the amphiphilic compound is a soap.

8. A method according to any of Claims 1 to 7, in which the dispersion contains a water repellent agent that cures to form a hydrophobic silicone resin in an alkaline environment.

9. A method according to any of Claims 1 to 8, in which the dispersion further contains glass fibre reinforcement.

10. A method according to any of Claims 1 to 9, in which the gypsum product has surface reinforcement.

11. A method according to any of Claims 1 to 10, in which the gypsum product is produced without externally applied heating.