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CLAIMS

1. Use of calcium nitrate as an admixture for a steel reinforced concrete composition to increase the resistance towards carbonation of the steel reinforced hardened concrete, wherein the concrete composition comprises cement and the calcium nitrate at a dosage of 1 weight% to 4 weight% of the cement content of the concrete composition.

2. Use according to claim 1, wherein the concrete composition is a pourable and curable concrete composition, comprising per m^3 cured concrete
   - between 300 and 500 kg cement;
   - between 150 and 300 kg water;
   - between 1.500 and 1.800 kg aggregate; and
   - between 1 weight% to 4 weight% of the cement content of the concrete composition, depending on the type of cement, of calcium nitrate.

3. Use according to any of claims 1 or 2, wherein calcium nitrate increases the density of voids with a void diameter below to at most 300 µm by at least 10%; preferably at least 20%; more preferably at least 30 %; most preferably at least 40%.

4. Use according to any of claims 1 to 3, wherein calcium nitrate increases the density of voids with a void diameter ranging from at least 30 µm to at most 300 µm by at least 5% to at most 50%; preferably at least 10% to at most 45%; more preferably at least 20 % to at most 45%; most preferably at least 30% to at most 45%.

5. Use according to any of claims 1 to 4, wherein calcium nitrate increases the density of voids with a void diameter ranging from at least 50 µm to at most 150 µm by at least 5% to at most 50%; preferably at least 10% to at most 45%; more preferably at least 20 % to at most 45%; most preferably at least 30% to at most 45%.

6. Use according to any of claims 1 to 5, wherein calcium nitrate increases the density of voids with a void diameter ranging from at least 60 µm to at most 100 µm by at least 5% to at most 50%; preferably at least 10% to at most 45%; more preferably at least 20 % to at most 45%; most preferably at least 30% to at most 45%.

7. Steel reinforced concrete solid having an elevated resistance towards carbonation obtained from hardening a pourable and curable concrete composition, comprising per m^3 cured concrete
   - between 300 and 500 kg cement;
   - between 150 and 300 kg water;
   - between 1.500 and 1.800 kg aggregate; and
   - between 1 weight% to 4 weight% of the cement content of the concrete composition, depending on the type of cement, of calcium nitrate.

8. Method for producing a steel reinforced concrete solid having an elevated resistance towards carbonation, comprising the steps of:

   (I) preparing a pourable and curable concrete composition, comprising per m^3 cured concrete
      - between 300 and 500 kg cement;
      - between 150 and 300 kg water;
      - between 1.500 and 1.800 kg aggregate; and
      - between 1 weight% to 4 weight% of the cement content of the concrete composition, depending on the type of cement, of calcium nitrate;

   comprising mixing the water, the cement, the aggregate and the calcium nitrate;

   (II) casting the concrete composition into a form provided with a steel reinforcement; and

   (III) having the concrete composition hardened into the steel reinforced concrete solid with the elevated resistance towards carbonation.