CLAIMS

1. Admixture for mineral binder compositions, especially for the reduction of shrinkage, comprising at least one superabsorbent polymer **SAP** and at least one defoamer **D**, characterized in that the weight ratio of the at least one **SAP** to the at least one defoamer **D** is from 1:2 **–** 1:5.

2. Admixture according to claim 1, characterized in that the at least one superabsorbent polymer **SAP** is selected from the group consisting of polyacrylamide, polyacrylonitrile, polyvinyl alcohol, isobutylene maleic anhydride copolymers, polyvinylpyrrolidone, homo- and copolymers of monoethylenically unsaturated carboxylic acids, such as (meth)acrylic acid, crotonic acid, sorbic acid, maleic acid, fumaric acid, itaconic acid, preferably polyacrylic acid, which can be partially or fully neutralized, and co- and terpolymers of the said monoethylenically unsaturated carboxylic acids with vinylsulfonic acid, (meth)acrylamidoalkylsulfonic acid, allylsulfonic acid, vinyltoluenesulfonic acid, vinylphosphonic acid, (meth)acrylamide, N-alkylated (meth)acrylamide, N-methylol(meth)acrylamide, N-vinylamide, N-vinylformamide, N-vinylacetamide, vinylpyrrolidon, hydroxyalkyl(meth)acrylate, ethylacrylate, methylacrylate, (meth)acrylic acid esters of polyethyleneglycolmonoallylethers, vinylacetate and/or styrene.

3. Admixture according to any of claims 1 or 2, characterized in that the at least one superabsorbent polymer **SAP** is a polyacrylic acid which can be partially or fully neutralized and which is crosslinked.

4. Admixture according to any of claims 1 - 3, characterized in that the at least one defoamer **D** is selected from the group consisting of mineral oils, vegetable oils, or white oils which may comprise a wax and/or hydrophobic silica, silicones, which can be modified by alkoxylation or fluorination, alkyl esters of phosphoric or phosphonic acid, alkoxylated polyols, especially ethoxylated diols, fatty acid based defoamers, especially mono- and diglycerides of fatty acids, and alkoxylated fatty alcohols.

~~5. Admixture according to any of claims 1 - 3, characterized in that the weight ratio of the at least one **SAP** to the at least one defoamer **D** is from 2:1 – 1:10, preferably 1:1 – 1:8, more preferably from 1:2 – 1:5.~~

~~6.~~5. Admixture according to any of the preceding claims, characterized in that it is an aqueous solution or dispersion comprising the at least one **SAP** and the at least one defoamer **D** in a combined amount of up to 85 wt.-%, preferably up to 66 wt.-%, especially up to 50 wt.-%, each based on the total weight of the admixture.

~~7.~~6. Use of an admixture of any of the ~~preceding claims~~claims 1 - 5 to improve dimensional stability, especially to reduce shrinkage of a mineral binder composition, especially a cementitious binder composition.

~~8.~~7. Use of an admixture of any of the ~~claims 1 - 6~~claims 1 - 5 to improve the surface texture of a hardened mineral binder composition.

~~9.~~8. Use of an admixture of any of the claims 1 - ~~5~~6 in a manual process, a semi-automated process or an automated process, preferably a semi-automated or automated process, especially in a process of additive manufacturing.

~~10.~~9. A mineral binder composition comprising

a) 10 – 65 wt.-%, preferably 12 – 55 wt.-%, especially 15 – 50 wt.-% of at least one mineral binder,
b) 0.01 – 0.5 wt.-%, preferably 0.02 – 0.25 wt.-%, more preferably 0.05 – 0.2 wt.-% of at least one **SAP**,
c) 0.05 – 2 wt.-%, preferably 0.1 – 1 wt.-%, more preferably 0.25 – 0.8 wt.-% of at least one defoamer **D**,
d) 0 – 85 wt.-%, preferably 30 – 80 wt.-%, more preferably 40 – 70 wt.-% of aggregates, preferably of sand and/or a fine carbonate, especially a fine calcium carbonate and/or magnesium carbonate,
e) 0 – 10 wt.-%, preferably 0.1 – 7 wt.-%, more preferably 0.2 – 5 wt.-% of other additives selected from the group consisting of plasticizers,

superplasticizers, accelerators, retarders, rheology modifiers, especially thickeners, anti-settling agents, pigments, corrosion inhibitors, fibers, strength enhancers, waterproofing additives, alkali-aggregate reaction inhibitors, chromate reducers, and/or anti-microbial agents, and

f) optionally water,

each based on the total dry weight of the mineral binder composition, characterized in that the weight ratio of the at least one **SAP** to the at least one defoamer **D** is from 1:2 – 1:5.

~~11.~~10. A mineral binder composition according to claim ~~9~~10, characterized in that the at least one mineral binder is a mixture of at least one CEM I or CEM II and at least one calcium sulfoaluminate cement.

~~12.~~11. A mineral binder composition according to any of claims ~~9~~10 and 1~~0~~1, characterized in that the mineral binder comprises

a) 0.1 – 8 wt.-%, more preferably 0.5 – 5 wt.-%, especially 1.2 – 3 wt.-%, each based on the dry weight of the mineral binder composition, of a CSA cement and

b) 2 – 64.9 wt.-%, preferably 4 – 60 wt.-%, especially 12 – 48.8 wt.-%, each based on the dry weight of the mineral binder composition, of a CEM I and/or a CEM II.

~~13.~~12. A mineral binder composition according to any of claims ~~9~~10 - 1~~1~~2, characterized in that it comprises

a) 0.02 – 1.0 wt.-%, preferably 0.05 - 0.8 wt.-%, especially 0.1 - 0.5 wt.-% of a polycarboxylate ether composed of (meth)acrylic acid and methyl polyalkylene glycol (meth)acrylates and having a molecular weight Mw of 8’000 to 200’000 g/mol, especially 10’000 to 100’000 g/mol

and

b) a maximum of 1 wt.-%, more preferred of 0.75 wt.-%, especially of 0.6 wt.-% of at least one thickener selected from the group consisting of starch, pectin, amylopectin, modified starch, cellulose, modified cellulose, such as carboxymethylcellulose, hydroxymethylcellulose, hydroxyethylcellulose, methylhydroxyethylcellulose, casein, welan gum, xanthan gum, diutan gum, galactomannanes, such as guar gum, tara gum, fenugreek gum, locust

bean gum or cassia gum, alginates, tragacanth gum, dextran, polydextrose, layered silicates such as sepiolite,
each based on the total weight of the mineral binder composition.

~~14.~~13. Method of producing a hardened article comprising the steps of

1) mixing a mineral binder composition according to any of claims ~~9~~10 - 1~~2~~3 with water,
2) optionally conveying the mixture obtained in 1) to the location of placing,
3) placing the mixture obtained in 1) into any desired shape,
4) curing the mixture obtained in 1),

characterized in that step 1) is done in a continuous process by means of a static and/or dynamic mixer.

~~15.~~14. Use of a water-containing mineral binder composition of any of claims ~~9~~10 - 1~~2~~3 in a process of additive manufacturing.

~~16.~~15. Shaped article obtainable by curing a mineral binder composition according to any of claims ~~9~~10 - 1~~2~~3.