y is preferably 2*x to 0.98.

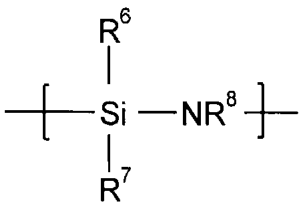
3. The material according to claim 1 or 2 wherein

R^1 is vinyl or allyl;
R^2 is (C_1-C_4)-alkyl, phenyl or H;
R^3 is H;
R^4 is (C_1-C_4)-alkyl, phenyl or H;
R^5 is H;
x is 0.03 to 0.075 and
y is 2*x to 0.97.

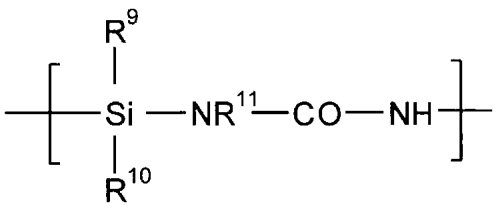
4. The material according to any one of claims 1 to 3, wherein

R^1 is vinyl;
R^2 is methyl, ethyl, propyl or phenyl;
R^3 is H and
R^4 is methyl, ethyl, propyl or phenyl;
R^5 is H;
x is 0.03 to 0.06 and
y is 2*x to 0.97.

5. The material according to any one of claims 1 to 4, wherein the organopolysilazane comprises one or more organopolysilazane comprising a repeating unit of formula (I) and formula (II) and one or more repeating units of formula (III) and/or (IV),



(III)



(IV)

wherein

R^6, R^7, and R^9 are independently an organic group;
R^{10} is H or an organic group, and
R^8 and R^{11} are independently H or an organic group.

6. The material according to claim 5, wherein the symbols in formulae (III) and (IV) have the following meanings:

R^6, R^7 and R^9 are independently $(C_1\text{-}C_8)$-alkyl, $(C_3\text{-}C_6)$-cycloalkyl or $(C_6\text{-}C_{10})$-aryl;

R^{10} is independently $(C_1\text{-}C_8)$-alkyl, $(C_3\text{-}C_6)$-cycloalkyl or $(C_6\text{-}C_{10})$-aryl, $(C_2\text{-}C_6)$-alkenyl, $(C_4\text{-}C_6)$-alkadienyl or H and

R^8 and R^{11} are H, $(C_1\text{-}C_8)$-alkyl, $(C_3\text{-}C_6)$-cycloalkyl or $(C_6\text{-}C_{10})$-aryl.

7. The material according to any one of claims 1 to 6, wherein the molecular weight M_w of the organopolysilazanes is in the range of 2000 - 150,000 g/mol.

8. The material of any one of claims 1 to 7, wherein the organopolysilazane material has a viscosity of 100 - 100,000 mPas at 25°C.

9. The material according to any one of claims 1 to 6 and 8, wherein the amount of low molecular material with M_w < 500g/mol in the organopolysilazane material is below 15wt.-%.

10. The material according to any one of claims 1 to 9, wherein the inorganic nanoparticles have a mean diameter in the range of from 3 to 20 nm.

11. The material according to any one of claims 1 to 10, wherein the inorganic nanoparticles are selected from the group consisting of semiconductor nanoparticles, metal nanoparticles, metal oxide nanoparticles and a combination comprising at least one of the foregoing.

12. The material according to claim 11, wherein the inorganic nanoparticles are selected from the group consisting of ZrO_2, $BaTiO_3$ and TiO_2.