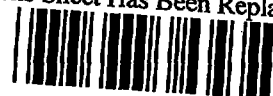




Process for the preparation of crystalline
sodium disilicates

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Abstract of the disclosure

To prepare crystalline sodium disilicates having a
5 laminar structure, a molar ratio of SiO_2 to Na_2O of (1.9
to 2.1): 1 and a water content of less than 0.3% by
weight, a water glass solution is first obtained by
reacting sand with sodium hydroxide solution in a molar
ratio of SiO_2 to Na_2O of (2.0 to 2.3) : 1 at temperatures
10 of 180 to 240°C and pressures of 10 to 30 bar. This water
glass solution having at least 20% by weight of solids is
treated in a spray drier with hot air at 200 to 300°C
with the formation of a pulverulent amorphous sodium
disilicate having a water content (determined as loss on
15 heating at 700°C) of 15 to 23% by weight and a bulk
density of at least 300 g/l. The spray-dried pulverulent,
amorphous sodium disilicate is ground. The ground sodium
disilicate is introduced into a rotary kiln equipped with
devices for moving solids, externally heated via the wall
20 and having in its interior a plurality of different
temperature zones, and is treated therein at temperatures
of 400 to 800°C for 1 to 60 minutes with formation of
crystalline sodium disilicate.