

Title (en)

METHOD FOR PRODUCING A LARGE QUARTZ-GLASS PIPE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES QUARZGLAS-GROSSROHRES

Title (fr)

PROCÉDÉ DE FABRICATION D'UN TUBE DE GRAND DIAMÈTRE EN VERRE DE QUARTZ

Publication

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Application

EP 14736800 A 20140708

Priority

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Abstract (en)

[origin: WO2015004103A1] Multi-step shaping methods for producing a large quartz-glass pipe are known, in which in a first forming step an intermediate cylinder made of quartz glass and having an intermediate-cylinder wall thickness and an intermediate-cylinder outside diameter is formed by using a forming tool and is then cooled, and in a second shaping step at least one length segment of the cooled intermediate cylinder is fed to a heating zone, is heated to a softening temperature zone by zone therein, and, while rotating about the longitudinal axis of the intermediate cylinder, is shaped into the large quartz-glass pipe having a final wall thickness and a final outside diameter. Geometry fluctuations increase exponentially with the outside diameter of the final pipe. In order to specify a method on the basis thereof which permits quartz-glass pipes having high dimensional accuracy even for large outside diameters greater than 500 mm to be produced at economically justifiable expense, the quartz glass according to the invention is synthetically produced and has an average hydroxyl group content of 10 ppm by weight or less, with the additional stipulation that, if the intermediate cylinder is divided into length segments having a length of 1 cm, adjacent length segments have a difference of less than 2 ppm by weight in the average hydroxyl group content thereof.

IPC 8 full level

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See references of WO 2015004103A1

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