

Title (en)
DOWNHOLE HEAT EXCHANGER FOR A GEOTHERMAL HEAT PUMP

Title (de)
ERDWÄRMESONDE FÜR EINE GEOTHERME WÄRMEPUMPE

Title (fr)
SONDE GÉOTHERMIQUE POUR UNE POMPE À CHALEUR GÉOTHERMIQUE

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Application
EP 10768913 A 20101011

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Abstract (en)
[origin: CA2777344A1] The invention relates to a downhole heat exchanger for extracting geothermal energy from a borehole, wherein the inner surface of the exchanger tube comprises the following roughness values: a) an arithmetic mean roughness Ra according to DIN EN ISO 4287 in the range of 1 to 15 µm, b) an averaged roughness Rz according to DIN EN ISO 4287 in the range of 8 to 80 µm, and c) a maximum roughness depth Rz1max according to DIN EN ISO 4287 in the range of 10 to 500 µm, comprising an improved precipitation film during operation, such that the entire surface of the exchanger tube is uniformly wetted.

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