

Title (en)

METHOD FOR DETERMINING TIME TO BRITTLE FAILURE OF A PIPE MADE OF POLYPROPYLENE

Title (de)

VERFAHREN ZUR BESTIMMUNG DER ZEIT BIS ZUM SPRÖDIGKEITSBRUCH EINES ROHRES AUS POLYPROPYLEN

Title (fr)

PROCÉDÉ PERMETTANT DE DÉTERMINER LE TEMPS DE RUPTURE FRAGILE D'UN TUYAU EN POLYPROPYLÈNE

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Application

EP 17735595 A 20170711

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Abstract (en)

[origin: WO2018011177A1] The invention relates to a method for determining the time to brittle failure of a pipe made of a polypropylene composition, comprising: a) providing a specimen of the polypropylene composition having a predetermined shape, b) elongating the specimen at a constant traverse speed at a predetermined temperature, c) measuring the load sustained by the specimen during the elongation to obtain a stress-strain curve and measuring the yield stress Y, d) calculating true stress-true strain curve from the stress strain curve obtained by step c) and calculating the tensile strain hardening modulus Gp from the true stress- strain curve, according to the method as described in ISO/DIS 18488, e) calculating a quotient of the tensile strain hardening modulus Gp divided by the yield stress Y and f) determining the time to brittle failure of the pipe based on the quotient Gp/Y.

IPC 8 full level

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