

Title (en)

PROCESS FOR PRODUCING AN ENERGY CABLE HAVING A THERMOPLASTIC ELECTRICALLY INSULATING LAYER

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES STROMKABELS MIT EINER THERMOPLASTISCHEN ELEKTRISCH ISOLIERENDEN SCHICHT

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN CÂBLE ÉLECTRIQUE COMPRENANT UNE COUCHE D'ISOLATION ÉLECTRIQUE THERMOPLASTIQUE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2013171550A1] Process for producing an energy cable comprising at least one electrically conductive core and at least one thermoplastic electrically insulating layer, which comprises the steps of: impregnating a thermoplastic material in subdivided solid form, having a melting enthalpy equal to or lower than 70 J/g, with a dielectric fluid to obtain an impregnated thermoplastic material; feeding said impregnated thermoplastic material in subdivided solid form to a single-screw extruder; and extruding the impregnated thermoplastic material onto said at least one electrically conductive core, so as to form said at least one thermoplastic electrically insulating layer; whereby said impregnated thermoplastic material is not subjected to any mechanical homogenization step in a molten state. The above process allows to obtain energy cables having a large amount of the dielectric fluid in the electrically insulating layer, e.g. higher than 10 wt%, without showing any morphological defects in the layer itself and any drawbacks in the extrusion process, even when the rotation speed of the extruder screw and therefore the cable production speed are high (e.g. higher than 20 m/min for medium voltage cable).

IPC 8 full level

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