Title (en)

METAL PIPE WITH INTEGRALLY FORMED LINER AND METHOD OF FABRICATING THE SAME

Title (de)

METALLROHR MIT INTEGRIERTEM FUTTER UND VERFAHREN ZUR HERSTELLUNG DESSELBEN

Title (fr)

CONDUITE METALLIQUE AVEC UNE CHEMISE INTEGREE ET PROCEDE DE FABRICATION D'UNE TELLE CONDUITE

Publication

EP 0729409 A4 20000412 (EN)

Application

EP 94902377 A 19931118

Priority

US 9311421 W 19931118

Abstract (en)

[origin: CA2176762A1] A metal pipe and method of forming the same with an integrally formed liner (16) for use in corrosive and abrasive environments is disclosed. The liner (16) is comprised of a relatively thick high density polyethylene which is thermally bonded to the metal pipe. An intermediate coextruded polymer layer of ethylene acrylic acid and a polyethylene/ethylene acrylic acid blend is applied to the metal pipe to facilitate thermal bonding. The intermediate layer (11) is applied to the sheet metal in a pre-treatment process prior to roll forming ribs (12) into the sheet metal. The polyethylene liner (16) is applied after the ribs (12) are formed to provide a smooth, hydraulically efficient surface which is resistant to the corrosive action of sulfuric acid and the like encountered in sanitary applications, as well as abrasion caused by the flow of water-borne debris such as dirt and gravel as is encountered in culvert applications. Various means for further securing the polyethylene layer to the metal pipe surface are disclosed.

IPC 1-7 (main, further and additional classification)

B32B 15/00; B29D 23/00

IPC 8 full level (invention and additional information)

B29C 47/02 (2006.01); **B29C 47/06** (2006.01); **B29C 53/78** (2006.01); **B29D 23/00** (2006.01); **B32B 15/00** (2006.01); **B32B 15/08** (2006.01); **F16L 9/02** (2006.01); **F16L 9/147** (2006.01); **F16L 9/16** (2006.01); **F16L 58/10** (2006.01)

CPC (invention and additional information)

B29C 48/13 (2019.02); **B29C 48/09** (2019.02); **B29C 48/12** (2019.02); **B29C 48/15** (2019.02); **B29C 48/18** (2019.02); **B29C 53/78** (2013.01); **B29D 23/00** (2013.01); **B32B 15/00** (2013.01); **B32B 15/08** (2013.01); **F16L 9/02** (2013.01); **F16L 9/147** (2013.01); **F16L 9/16** (2013.01); **F16L 58/10** (2013.01)

Citation (search report)

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- See also references of WO 9513917A1

Designated contracting state (EPC)

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DOCDB simple family

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