Title (en)

Process for the manufacturing of multi layer composite tubes with ferrous and non ferrous metal inlets.

Title (de)

Verfahren zur Herstellung mehrschichtiger Verbundrohre mit Metalleinlagen.

Title (fr)

Procédure de fabrication de conduites composées à plusieurs couches, avec orifices de entrée en métaux ferreux et non ferreux.

Publication

**EP 0639411 A1 19950222 (DE)**

Application

**EP 94104590 A 19940322**

Priority

DE 4310272 A 19930330

Abstract (en)

A process is claimed for mfg. a composite tube with two or more layers of different materials, at least one layer being polyethylene (PE) or crosslinked PE and another being metal. Tubes pref. comprise three layers with the metal (2) sandwiched between the plastic layers. The metal layer (2) is thin-walled and cut to suit the dia. of the inner tube (1). The metal layer (2), pref. of aluminium, is wrapped around the continuous inner tube (1) and a gas-tight weld formed between the contacting free ends. The plastic inner tube (1) acts as a bending mandrel for the metal band (2) and moves continuously and synchronously with it. Tube shape and dimensional tolerances are determined by the plastic tube (1) and therefore calibration and reducing devices are unnecessary. Exclusion of oxygen from the construction improves welding and the bond between the inner tube (1) and metal band (2). Free edges on the metal (2) are turned up by a shaping tool to form mating faces which when welded are gas tight. The free edges of the metal layer (2) are trimmed in a machine in front of the tube forming machine to ensure equal band (2) width and oxide free edges for gas welding. Turned-up edges act as stabilisers and guides for the tube during continuous prodn.

Abstract (de)

Das vorgestellte Verfahren hat den Grundgedanken das Kunststoff-Innenrohr mit einem Metallband kraftschlüssig zu Umformen und durch sinnvolles Formen der Bandkanten die Schweißung zu ermöglichen. Die eng anliegende Umformung des Innenrohres mit den nach außen hochgestellten Bandkanten bietet die Vorteile der besseren Rohrkantenführung. Diese Voraussetzungen sind erforderlich, um störungsfreie, hochproduktive Verfahren zu sichern. <IMAGE>

IPC 1-7

**B21C 37/08**; B21C 37/09

IPC 8 full level

**B21C 37/08** (2006.01); **B21C 37/09** (2006.01)

CPC (source: EP)

**B21C 37/0822** (2013.01); **B21C 37/09** (2013.01)

Citation (search report)

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