

PRODUCTION AND USE OF WELDING FILLER METAL

ABSTRACT

A method for welding an article includes producing welding filler metal (64) by the steps of furnishing a powder of a welding-filler-metal composition, preferably a titanium aluminide or a nickel-base superalloy, providing a continuous casting mold (40) having a welding-filler-metal diameter, and melting the powder into a top (50) of the continuous casting mold (40), while withdrawing a continuous length of the welding filler metal (64) from a bottom (68) of the continuous casting mold (40). The melting is preferably accomplished using a laser to achieve a concentrated heating zone. The welding filler metal (64) is used to weld an article, by applying an overlay layer (70) or by joining articles (90, 92) together.

Fig. 2



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