

Title (en)

A method of making wear resistant gray cast iron.

Title (de)

Verfahren zur Herstellung eines verschleissfesten Graugusseisens.

Title (fr)

Procédé de fabrication de fonte grise résistante à l'usure.

Publication

EP 0272788 A1 19880629 (EN)

Application

EP 87310035 A 19871113

Priority

US 94514586 A 19861222

Abstract (en)

A method is disclosed for making gray iron having both increased wear resistance and impact toughness, comprising: (a) solidifying a hypoeutectic gray iron melt (i) to which has been added a carbide forming agent in an amount of .3-.8% by weight, selected from the group consisting of Ti, V and Mo, and, advantageously, a high carbon austenite-ferrite forming agent in an amount of .5-3.0%, by weight, selected from the group consisting of nickel and copper, and at a solidification rate to form a matrix with a mixture of flake graphite and eutectic carbide suspended in the matrix; and (b) heat treating the solid by (i) heating to a temperature and for a period of time to fully austenitize the solid (ii) quenching the solid to a temperature level and for a period of time to decompose austenite to form and high carbon austenite and ferrite matrix and (iii) air cooling the solid to room temperature.

IPC 1-7

C21D 5/00; C22C 37/00

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Citation (search report)

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