

Title (en)
A method of consolidating a powder

Title (de)
Verfahren zur Verfestigung von Pulver

Title (fr)
Procédé de consolidation de poudre

Publication
EP 1607157 A2 20051221 (EN)

Application
EP 05253052 A 20050518

Priority
GB 0413392 A 20040616

Abstract (en)
A method of consolidating a powder (10) comprises the steps of filling an electrically conductive container (12) with the powder (10). Any air is evacuated out of the filled container (12), which is then sealed. The sealed container (12) is placed in a die (20) and a force is applied to consolidate the powder (10). Simultaneously an electric pulse and an ultrasonic pulse are applied to the container (12) as the powder (10) is consolidated. The electric and ultrasound pulses are applied during consolidation to disrupt the grain boundaries and assist in the fragmentation of any oxides. The container (12) is then removed from the die (20) and from the consolidated powder (10).

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