

Preparation of WE43 Using Powder Metallurgy Route

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Magnesium alloy WE43 is well known for its low density and good mechanical properties. It has also fair corrosion resistance and relative usability up to 300 °C. All those properties are connected with the content of rare earth elements and determine this alloy not only for automotive and aviation industry, but also for applications as bio-degradable materials. In this work, WE43 alloy prepared by powder metallurgy methods is characterized. Final products are prepared by cold uniaxial pressing with subsequent extrusion or spark plasma sintering (SPS). Present paper deals with the characterization of processing methods used for the WE43 alloy preparation and also the characterization of prepared WE43 products as themselves.

Keywords: WE43, powder metallurgy, spark plasma sintering, extrusion.

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