

结构材料及核材料性能

高性能粘结Nd-Fe-B磁钢研究

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摘要 为满足专用机器的设计需求, 需研制大体积、高性能的各向同性磁钢。按照传统的烧结成型工艺生产的Nd-Fe-B磁钢, 磁均匀性差, 合格率低, 不适宜大规模生产, 因而成本高。本工作采用注射成型生产工艺, 经不断研究改进, 研制出新型XNA8磁钢。对其实行恰当的充磁, 磁钢的轴向磁拉力、径向刚度及磁偏心能够全面满足设计要求。产品经批量考核后, 确证其尺寸精度高, 磁性能一致性好, 易于批量生产, 经济性好。

关键词 [磁钢; Nd-Fe-B; 注射成型](#)

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Research of High-Powered Felted Nd-Fe-B Alnico

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Abstract To meet the special machine design, the large sized and high-performance isotropic magnet steel is needed to be developed. The Nd-Fe-B magnet steel produced with traditional sintering molding technology has poor magnetic uniformity and low pass rate and is not suited for large scale production, thus it has high cost. A new XNA8 magnet steel was developed with an injection molding production technology which was continuously studied and improved. After being properly magnetized the axial pull tension, radial rigidity and magnetic eccentricity of the magnet steel can totally meet design requirements. The magnetic property of injection molded XNA8 magnet steel has reached domestic advanced level. Through batch evaluation it is proved that the product has high dimension precision, good magnetic uniformity, and is suitable for batch production with good economic efficiency.

Key words [alnico](#) [Nd-Fe-B](#) [injected](#) [molding](#)

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扩展功能

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