A Novel Heat-Resistant Insulation-Processing Agent Applicable to Copper Die-Cast Squirrel-Cage Rotors

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Abstract

Energy saving is one of the most important tasks in the world and a new type of induction motor has been developed to improve the efficiency for that purpose. The insulation coating layer between the copper and the rotor core is quite effective in improving the motor efficiency. However, the coating layer is easily removed when molten copper is flushed into the holes of the core. We evaluated several coating materials made of silicon compounds and pigments and succeeded in developing a coating giving good heat resistance and adhesion for high-efficiency copper die-cast cage induction motors.

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