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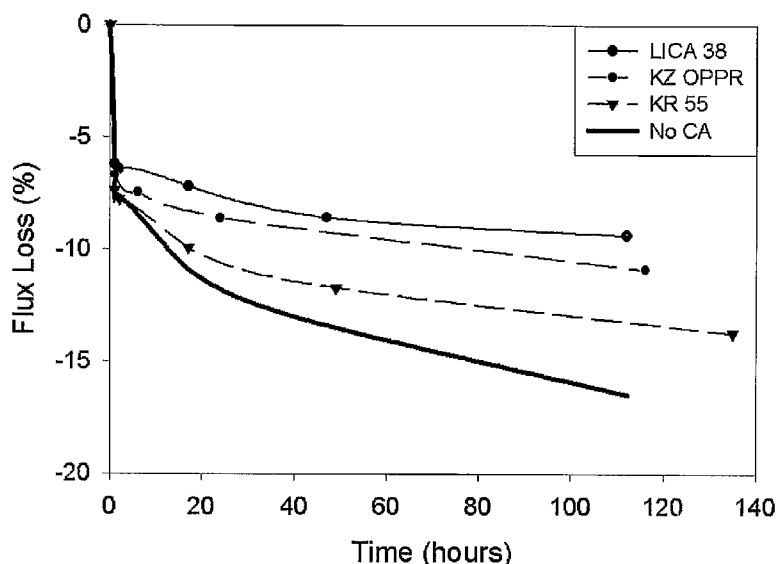
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(54) Title: COATING FORMULATION AND APPLICATION OF ORGANIC PASSIVATION LAYER ONTO IRON-BASED RARE EARTH POWDERS



(57) Abstract: The present disclosure relates to coating formulations for neodymium-iron-boron type magnetic powders manufactured from rapid solidification processes for the purpose, *inter alia*, of corrosion and oxidation resistance when exposed to aggressive environments. The coating formulation preferably contains an epoxy binder, curing agent, an accelerating agent, and a lubricant. By incorporating coupling agents and optionally, other specialty additives with the magnetic powder and the organic epoxy components, additional oxidation and corrosion prevention, enhanced adhesion and dispersion between the filler and matrix phases can be achieved. This disclosure relates to all such rare earth-transition metal-boron (RETM-B) powders produced by rapid solidification and encompasses both the bonded magnet products that include combinations of the materials mentioned and the application processes.



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