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(54) Title: EPOXY SIZING COMPOSITION FOR FILAMENT WINDING

(57) Abstract: A sizing composition containing an epoxy resin emulsion, one or more coupling agents, a cationic lubricant, and an acid. The epoxy resin emulsion includes a low molecular weight epoxy and one or more surfactants. The epoxy resin has an epoxy equivalent weight of from 175 - 225, preferably from 175 - 190. Optionally, the sizing composition may also contain a non-ionic lubricant, a polyurethane film former, and/or an antistatic agent. The sizing composition may be used to size glass fibers used in filament winding applications to form reinforced composite articles with improved mechanical properties, wet tensile properties, improved resistance to cracking, and improved processing characteristics.



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