# COATING COMPOSITIONS CONTAINING AQUEOUS DISPERSED EPOXY CROSSLINKED MICROGEL POLYMERS

## ABSTRACT

A protective coating composition of the type in which a polymeric binder comprising carboxyl moieties and epoxy crosslinking resin is dispersed in an aqueous medium but where the amounts of volatile organic compound in the aqueous medium have been reduced to minimal or zero amount by using a binder which is a microgel having a particle size below 2 μm and an acid number between 30 and 200 and which contains between 60 and 99wt% carboxyl functional addition copolymer dispersant of non-aqueous copolymerized ethylenically unsaturated monomers consisting of at least 5wt% carboxyl functional monomers based on the weight of the monomers copolymerized and having a number average molecular weight between 1,000 and 50,000 and an Acid No. between 30 and 300 coreacted with between 1 and 40% diepoxide crosslinking resin having an epoxide equivalent weight between about 100 and 500 and a number average molecular weight between 200 and 1,000.

Also a process for making the coating composition in which the carboxyl copolymer dispersant is pre-formed and then dispersed into water with the diepoxide and thereafter the crosslinking co-reaction is carried out thereby permitting the avoidance of specially added surfactants.

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