

ABSTRACT

The present invention provides a surface-coated electrical steel sheet for bonding at the entire surface of the steel sheet even when thinly coated, having a small drop in bond strength, and bonding by heat and/or pressure, the bonding use surface coated electrical steel sheet characterized in that the surface of the electrical steel sheet has an insulating coating exhibiting bondability by heating and/or pressing and in that the coating comprises a mixture of an epoxy resin or modified epoxy resin having a glass transition temperature (T_g) of 80°C to 150°C and an epoxy resin curing agent and particulate polymer having a particle size of 0.01 to 0.5 μm. Further, it is characterized in that the T_g of the particulate polymer is 10°C to 80°C and further in that the particulate polymer is an acrylic-based resin.