

Exploration on the effect of weld zone in high strength steel for structural applications

A high strength steel is used in ship application because they have high strength and toughness property. In ship structure mechanical property is reduced in the weld joint with respect to offshore environment. The arc welding is playing an important role in welding of hull component by high strength material in Shipyard. The width of the heat affected zone in the weld joint having less mechanical property and microstructure is affected as compared to base material. In this study, exploration on the effect of weld zone in high strength steel for structural application. The welding parameters are playing a major role and suitable parameters are used to control the width of the heat affected zone and enhance the mechanical property. Further microstructure properties also investigated and improve the suitable microstructure in ship applications.