

Brief Information of Covered Welding Rods for Nickel Base Alloys

Nickel base alloy welding rods mainly be used for nickel or nickel alloy workpieces, also they could be used for dissimilar metal welding or surfacing as well as for low weldability metals. The grooves and welding procedure of nickel alloy welded joints are similar to chromium-nickel austenite stainless steel. Following essentials should be paid more attention to:

- 1) The thermal conductance of nickel and nickel alloy is not good and the crystalline grain of the metal easy to be bigger via over heat input so smaller current is recommended. When welding the rod should not be wiggled breadthwise. The crater at the ending stage should be feeded to full and the interpass temperature should keep lower.
- 2) Nickel much easy to be embrittlement with sulphur (S) and plumbum (Pb) so not only to reduce S & Pb in the rods but also the weld zone of weldment must be cleaned away impurities of oil contamination, oil color, rust, moisture and so on strictly before welding.
- 3) Blowhole easy created in nickel and nickel alloy welding so there are right amount deoxidants of Ti, Mn and Mg in rods and the arc length should be controlled in welding.