Studi perbandingan ketahanan Korosi dan Struktur Mikro Baja COR CF8M (SS 316) yang dibuat dengan feronikel lokal dan Nikel impor

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Abstrak

Nickel is the most important element in cast stainless steel making. Among the other raw material nickel price is highest, and it 's still imported The purpose of this research are to compare eject of using ferronickelchram (Fe-Ni-Cr) local to corrosion resistance and microstructure CFSM (SS 316), compared with using of imported' pure nickel. Hopefully local raw material be able to substitute imported pure nickel as raw material of the cast stainless steel. Variable of this research are increasing Fe-Ni local percentage in cast raw material amount 0 %, 23%, 45 %and 79%. Each percentage processed in foundry process and sample made for chemical composition lest, corrosion resistance rest (polarization test) and microstructure analysis using optical microscope and Scanning Electron Microscope (SEM), in order to compared with cast stainless steel CFBM (SS 316).

The result show that, al! percentage chemical composition appropriate with references standard CFSM (Stainless Steel 7]/pe 316). Ai 45 % ana! 23% of Fe-Ni-Cr , corrosion resistance and microstructure are similar to 0 % (100 % pure nickel imported), 0,01-0,1mpy (1/1000 inch). While for percentage of 79 % have decreasing to 0,84mpy. This is caused by impurities, inclusion of Mn.S and the different of composition increasing corrosion resistance element molybdenum.