



Title

METHOD OF ELECTRODEPOSITION OF ZINC-NICKEL ALLOY ON STAINLESS STEEL SUBSTRATE



Inventor/s - Contact

Vermeșan Horațiu (Horatiu.Vermesan@imadd.utcluj.ro), Chira Mihail (chmihai.27@gmail.com)



Patent/ Application number

Patent OSIM no.: R0134133- B1/29.04.2022



Short presentation

The invention relates to a method of zinc-nickel alloy electrodeposition on the stainless steel parts through several stages. Electrodeposition of zinc-nickel alloy on stainless steel is important in applications where stainless steel is in contact with a less noble metal. Electrodeposition of zinc-nickel alloy on stainless steel is used especially in the automotive industry. The method of electrodeposition of the zinc-nickel alloy on a stainless steel substrate according to the invention consists of: chemical degreasing (only if the parts are dirty, oily); washing in water; surface preparation in alkaline solution; washing in water and electrolytic zinc in alkaline Zn-Ni solution.



Applicability

Chemical industry, automotive industry, telecommunications industry, planes, boats and ships in harsh environmental corrosive conditions

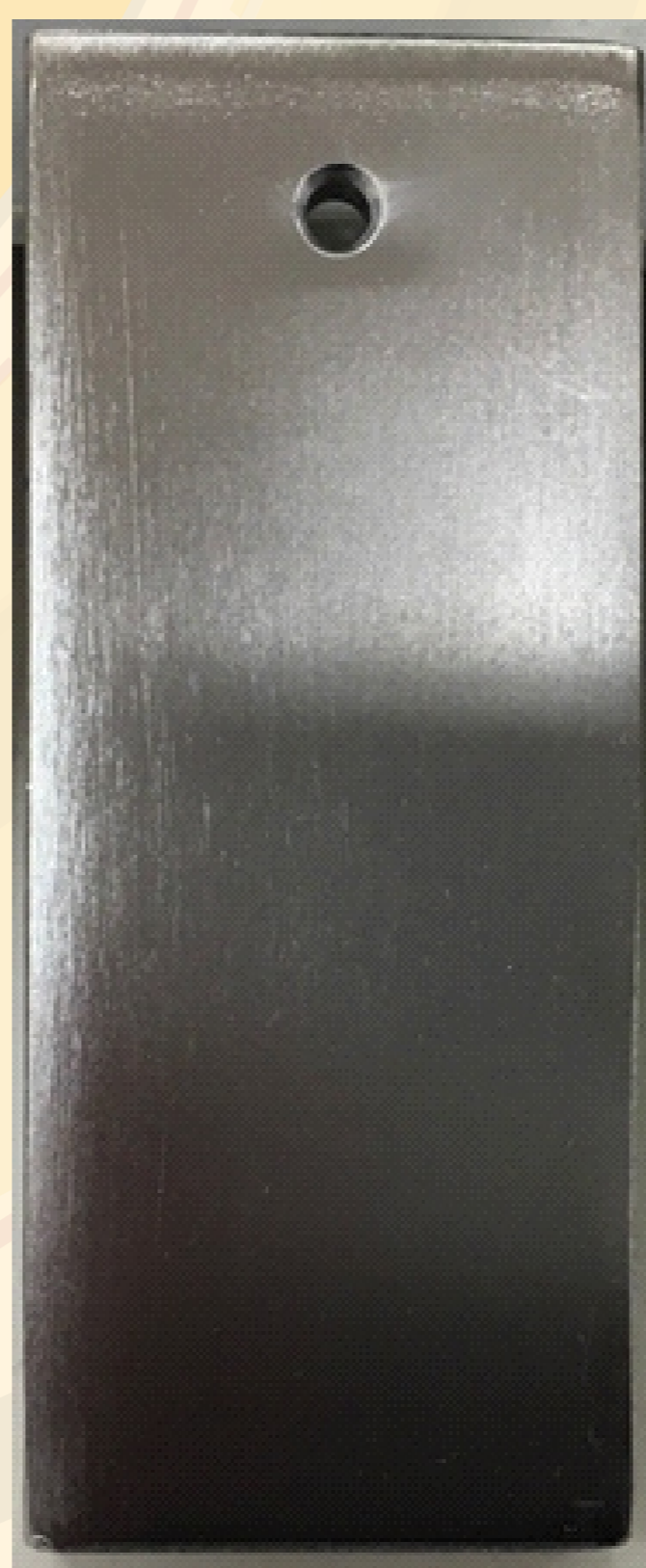


Images



(a)

Electrodeposition of the zinc-nickel alloy without using the method claimed on stainless steel substrate



(b)

Electrodeposition of the zinc-nickel alloy by the claimed method, on stainless steel substrate



©

Stainless steel without electrodeposition

Images with parts obtained by electrodeposition of zinc-nickel alloy on stainless steel substrate