

Reliability Of Electrodeposited Components For Fusion Application: A Process Evaluation Of The First Kind (Contribution ID: 1319)



- A process has been established in form of experiments where ~20 samples, from different baths, have been subjected to tests to evaluate and obtain a statistical variation in the quality of the bond at room as well as at elevated temperature of 150 C.
- Test results shows the variation in the bond strengths is highly dependent on the bath quality
- The results also establish that (1) it is mandatory to qualify the ED process according to the functional parameters and (2) it is equally important to qualify EACH bath, to ensure a reliable application of ED process for the actual components.
- Recommendation of the qualification process is as follows; (1) carrying out and interpreting the specially designed push test for samples (2) Co-relating the strength with the hardness parameters (3) study of microstructural characteristics and (4) application of process on production pieces.