

Technology Development Board (TDB) has entered into an agreement on 17th November, 2017 with M/s IMCO Alloys Private Limited, Mumbai for “Development and Commercialization of Sintered Carbide Alloys Technology”.

M/s IMCO Alloys is manufacturer of replaceable carbide tips for various types of applications related to wear & tear issues faced in industries like; Sugar, Cement, Aerospace, Mining & Construction, Automobile, Railways, Fertilizers & Petrochemicals etc.

About the Project and Product

The present invention provides a method for producing wear resistant functionally gradient composite block. This is directly welded/bolted to be used in crushing industries as replaceable tips. The composite materials are exposed to vacuum brazing and controlled cooling to achieve composite block comprising steel back, copper alloy intermediate layer and the sintered alloy top layer. The product after brazing is used in sugar factories, power plant, mineral industries and steel making plant for hammer tips that extends their life beyond that expected those made from conventional casting process. The novelty of their approach is that the sintered carbide will take care of the wear while load transmission is handled by the mild steel. In aforementioned applications that required better wearability and corrosion resistance it is often needed to replace casting with powder owing to a longer life of the latter. The superior performance of carbide alloys powder crushing parts can be attributed to the fine microstructure and micro segregation observed in atomized sintered alloy parts.



Dr. Bindu Dey, Secretary, TDB exchanging the Loan Agreement with Shri Joydeep Duttagupta and Mrs. Geeta Duttagupta, Director of M/s IMCO Alloys Private Limited, Mumbai

TDB financially supports M/s IMCO Alloys Private Limited for “Development and Commercialization of Sintered Carbide Alloys Technology”