Sci. and Cult. 91 (1-2): 62-72 (2025)

THERMAL BARRIER COATINGS FOR AEROSPACE INDUSTRY: A MINI REVIEW

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Thermal barrier coatings (TBCs) are highly advanced high-temperature coatings applied to superalloy surfaces of gas turbine or aero-engine parts that operate at very high temperatures. TBCs are indispensable for aerospace industry and the operational efficiencies of GT engines are enhanced with TBCs. This mini review article details the need for TBCs, the history of TBCs, the various components of TBCs, the materials used, the challenges faced by TBCs and the recent trends in TBCs. It also highlights the significant TBC research carried out at CSIR-National Aerospace Laboratories (NAL).

Keywords: Gas turbine; TBCs; bond coat, topcoat; plasma spray; hot corrosion; CMAS