



Research and Application of Anti-Sand and Rain Erosion Coatings

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Sand and rain erosion pose a significant threat to the structural integrity and safety of high-speed components, with helicopter rotor blades and wind turbine blades being prime examples. Coatings represent an effective strategy to mitigate this damage. This presentation will detail our development of a high-toughness coating system. Through rigorous evaluation in multiple environments, this coating has successfully resolved sand and rain erosion issues for helicopter rotor blades. Furthermore, the technology has been extended to applications in high-speed trains.