DC Plasma Spray of Boron Carbide on Armor Steel

Boron carbide (B₄C), also known as black diamond, is the third hardest material known to man. Being one of the hardest materials, they can be employed in ballistic protection by being coated on traditional steel armor plates hence enhancing the ballistic strength of the armor plate. The composite of steel and boron carbide combines the advantageous characteristics of B₄C and steel in armor applications. B₄C has since been successfully coated onto sand-blasted steel by Direct Current (DC) plasma spray.