

Efek Fraksi Volume Al₂O₃ terhadap Kualitas Komposit Isotropik Al/Al₂O₃ dengan Metode Metalurgi Serbuk

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Abstrak

Aluminum matrix composite which was reinforced by ceramic is one of MMCs which is developed as automotive part. This current research use aluminum as matrix: and alumina (Al₂O₃) powder reinforced with volume fraction of 10%, 20%, 30%, 40%. With-Almg coated by electroless. The result show that composite with Al+Mg coating owned better interfacial bonding than composite without coating. The highest elasticity moduli of Al₂O₃ is forward at volume fraction of 40% is 259.9 GPa. However elasticity modulus of composite without coating treatment with volume fraction 40% is 178,8 GPa, or increased about 45%.