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# Production and characterization of AA6061/clay silicon nanocomposite for industrial application

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Composites have been used as the needed material of current interest to curb deficiencies and meeting the ever-increasing demand in science and technology. In this study, production was done by stir casting method and the mechanical properties of AA6061/clay were assessed. The cast was manufactured with liquid metallurgy route through the reinforcement of 2 - 8 weight percentages of particle sizes of 75  $\mu\text{m}$  clay. The microstructural test such as SEM/EDS and mechanical properties were examined. From the results, the mechanical properties were found to increase at 8 % clay reinforcement. SEM images showed that uniform dispersal of particulates occur in the cast and an increase up to 8 % clay revealed significant blending of matrix and reinforcement as evidenced in the surface morphology study.

Topics

[Metallurgy](#), [Nanocomposites](#)

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