



The Application of Expanded Polystyrene (EPS) Foam as Pattern Material in Sand Casting of a Logo

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Abstract

Expanded polystyrene (Eps) foam was used as pattern material in sand casting of the University of Agriculture, Makurdi logo. The Eps foam and the traditional wood were designed and shaped to give the University logo and both used as pattern in sand casting. The University logo was produced as cast with the wooden and Eps pattern. Visual examination and gauge dimensional comparison for accuracy/ precision were investigated. The Eps foam produced a more accurate and precise dimensional cast compared to the wood, thereby placing the Eps too as a pattern material in casting. This is an aspect of waste management involving the transformation of waste to useful materials. It could impact on the commitment of the current Nigerian Government's fight against unemployment while increasing the options available for the local foundry industry.

Keywords: Expanded polystyrene, Foam, Sand, Casting, Moulding, Foundry, Aluminum alloy.

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