



# Acceptability of Plastic Materials for Structural Applications in Nigerian Buildings

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**Abstract**—In lieu of the fact that plastic materials have many unique properties, they are in several new applications. This research studied the application of plastic materials in Nigerian building industry, the extent to which plastic products are being used in Nigeria for structural elements in building construction and factors affecting the choice of plastic materials in the Nigeria building industry. This was done through the distribution of questionnaires and interviews with key persons in the construction sector in order to map their perceptions and personal experience. Companies, research institutes and building sites using various forms of plastic material for building construction were visited. Statistical methods were used to analyse the data. The outcome of this research shows that the level of acceptability of plastic materials in Nigerian construction industry for structural purposes is not very good. Polyvinyl chloride and polystyrene are the most used plastics and they are applied in pipes, finishes, ceiling, wall panels, windows and doors while advanced plastic materials such as fibre reinforced polymers are not widely used.

**Keywords**— Plastic Materials, FRP, Construction Materials, Affordable Houses, Performance Acceptance.