

A method for producing a building/construction material using waste plastic

Industries for this invention

- Construction industry
- Building Industry

Innovation Status

TRL 5
Lab scale validation
and early prototype

Intellectual Property

Patent

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Invention

The invention uses plastic waste and Waste Foundry Sand (WFS) to produce building and construction material. The plastic is melted and WFS is used to produce a paste for moulding of building material.

Problem Solved

Plastics are vital materials in our daily lives at present, with serious negative impacts on our environment. Waste plastic is non-biodegradable and the cost of waste disposal in landfills due to shortage of space and environmental restrictions are ever-increasing.

This invention recycles and reuses plastic waste with Waste Foundry Sand (WFS), to produce building/construction material. WFS in South Africa is currently classified as general waste therefore limiting its application.

Application

The product is suitable for use in the building and construction industry. Products such as building bricks and roof tiles can be produced from this material.

Advantages

- The use of two waste materials each with severe environmental impact, therefore reducing environmental pollution from plastic waste
- Provides a use for the Waste Foundry Sand (WFS) otherwise classified as general waste
- Alleviates the costs of waste disposal in landfills relating to shortage of space and environmental restrictions/issues

