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Highlights

- Foundry sand waste (ASW) from the manufacture of engine parts was studied in the production of concrete.
- Ordinary Portland cement (OPC) was replaced with 0, 10, 20, 30, and 40 wt% ASW.
- Partial replacement with ASW increased the slump loss rate and setting time of fresh concrete.
- Replacing 30% of OPC with ASW resulted in a compressive strength of 27–33 MPa at 28 days.
- The concrete with ASW mixtures showed good resistance to sulfate and sulfuric acid attacks.

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