

Technology in Brief

Rapid urbanization has led to increased infrastructure demand and higher cement consumption, significantly contributing to CO₂ emissions. As the second-largest source of industrial CO₂ after power plants, the cement industry faces growing pressure to adopt sustainable practices.

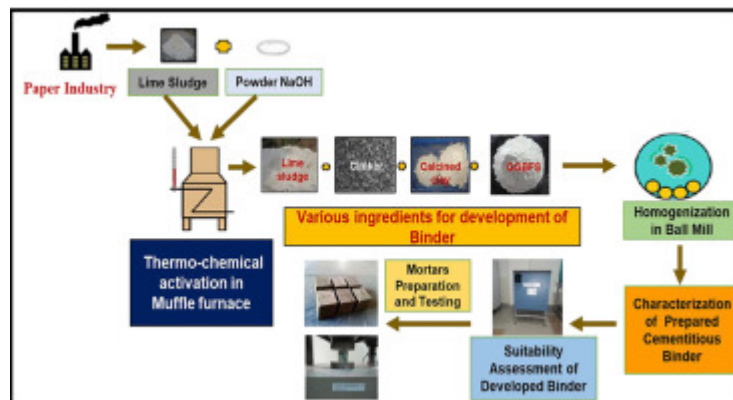
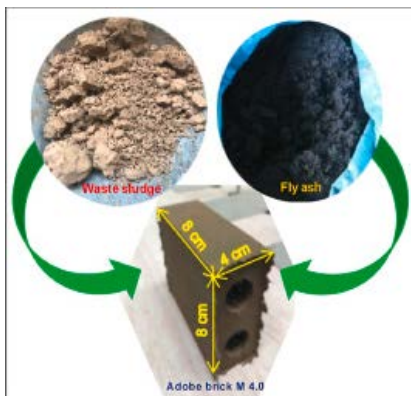
Lime sludge, a calcium-rich industrial byproduct generated in large quantities by industries like paper, sugar, acetylene, and fertilizers, presents an eco-friendly alternative. Traditionally landfilled, its disposal poses environmental and land use challenges.

A cost-effective and sustainable solution has been developed to utilize both raw and chemically activated lime sludge in the production of bricks and concrete blocks. These materials meet the requirements of **IS: 16720-2018**, ensuring quality in terms of strength, density, water absorption, shrinkage, and durability.

This innovative approach not only diverts waste from landfills but also reduces dependence on cement and natural resources, promoting a circular economy in construction.

Salient features/Advantages

- Eco-Friendly Solution.
- Reduces CO₂ Emissions.
- Cost-Effective.
- Waste Management.
- Calcium-Rich Composition.
- IS 16720:2018 Compliant.
- Energy-Efficient Production.
- Saves Natural Resources.
- Adaptable Formulation.
- Promotes Circular Economy.



Properties & Standards	Eco-friendly lime sludge-based wall putty is a cost-effective, sustainable material with excellent workability, water retention, and adherence to IS 15477:2019 standards.
End Product(s)	Lime Sludge-Based Concrete Blocks
License/Commercialization	M/s Ruchira Papers Limited, Trilokpur Road, Kala Amb, Sirmaur, Himachal Pradesh- 173 030
TRL	6
Environmental Impact	Sustainable/ environment friendly building bricks and blocks.
Setup - Equipment required	Sludge Drying Unit, Jaw Crusher / Grinder, Mixer / Pan Mixer, Sieving Equipment, etc.