

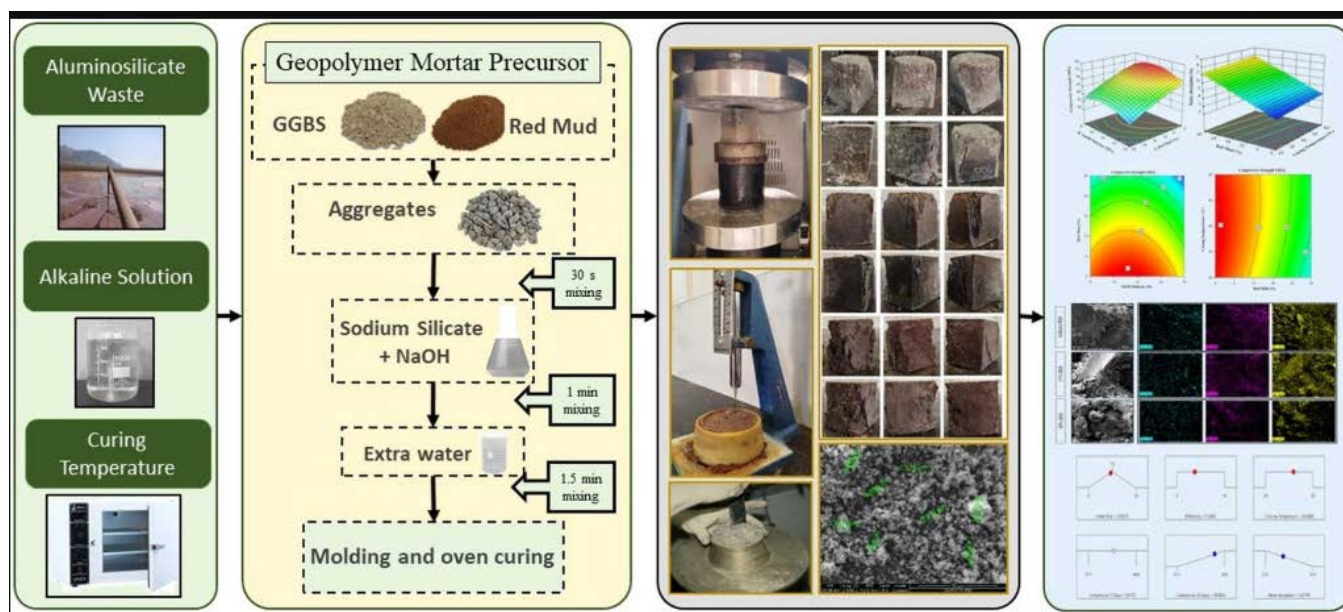
Geo-Mortar: A Single Component Geopolymer based Mortar as Repair Material

Technology in Brief

Geopolymer technology presents a sustainable alternative to traditional cement by utilizing industrial waste materials like fly ash, GGBFS, and rice husk ash, significantly reducing CO₂ emissions. Unlike conventional two-part systems requiring hazardous liquid alkali activators, the newly developed single-component “just add water” geopolymer mortar offers safe handling, ease of use, and on-site application similar to OPC-based mixes. Incorporating fibers like polypropylene further enhances the ductility, crack resistance, and mechanical performance of the geopolymer matrix, making it an ideal eco-friendly solution for construction and repair applications.

Salient features/Advantages

- Eco-friendly Binder.
- “Just Add Water” System.
- Cost- Effective.
- Improved Durability.
- Enhanced Mechanical Properties.
- Versatile Application.
- Resource Efficient.



End Product(s)	A ready-to-use, single-component geopolymer mortar designed for durable, eco-friendly structural repair of concrete surfaces.
License/Commercialization	M/s. Aadhar Consulting Engineers Pvt. Ltd., 709, 7th Floor, Regus Delhi Plot No. 4B, District center, Mayur Vihar Extension, Phase-1, Delhi- 110096
TRL	06
Environmental Impact	Geo-Mortar significantly reduces carbon emissions and utilizes industrial by-products, offering a sustainable and eco-friendly alternative to traditional cement-based repair materials.
Setup - Equipment required	Mixing container, mechanical mixer, measuring equipment, trowel, and standard surface preparation tools such as a wire brush or grinder.