Self-compacting Aircrete Composite (SAC) Roof/Floor Screed for Thermal Insulation (SAC Screed)

Technology in Brief:

This innovative process for producing lightweight concrete without requiring any special curing technique such as- autoclaving, using chemical foaming and incorporating waste materials like fly ash etc. This energy-efficient method is suitable for various precast and cast-in-situ building applications, especially where thermal insulation and reduced dead load are desired. SAC differs from traditional autoclaved aerated concrete (AAC) as it's produced at ambient pressure, making it more energy-efficient and environmentally friendly. It introduces air voids into the concrete matrix through chemical foaming agents and can utilize various waste materials to develop a lighter material that still provides adequate strength, and insulation.

Salient Features/Advantages:

- Lightweight material
- Thermal Insulation and Sound Insulation
- Self-Compacting
- Sustainable & Energy-Efficient Production
- Waste Material Utilization
- Adequate Strength

Properties & Standards	SAC screed meets IS:2185 (Part 3) with 5.2-6.8 N/mm² compressive strength, 0.384 W/m·K thermal conductivity, and 1100-1200 kg/m³ density.
End Product (s)	Self-compacting Aircrete Composite (SAC) Roof/Floor Screed for Thermal Insulation
License/Commercialization	The technology is ready for licensing and commercialization.
TRL	7
Environmental Impact	Eco-friendly technology using waste materials, reduces energy use and supports green construction.