

To Study the Preparation, Properties and Uses of Light Weight Foamed Soils

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The construction industry seeks a versatile material for utilizing dredged soil effectively on-site. Lightweight foamed soil (LWFS) emerges as a promising solution, offering flexibility in strength, density, and thermal insulation at a cost-effective rate. LWFS comprises readily available ingredients such as raw soil, water, foam, and binder, making it a sustainable alternative to traditional building materials. This innovative soft soil treatment method, also known as Super Geo Material, presents numerous advantages over conventional options. LWFS demonstrates environmental friendliness and finds applications in various construction tasks, including road filling, retaining structures, and ground improvement. This paper provides an overview of LWFS, detailing its properties, applications, and preparation methods. By exploring the potential of lightweight foamed soil, this study aims to contribute to the advancement of sustainable construction practices and address the growing need for versatile materials in the construction industry.