



Hempstatic 

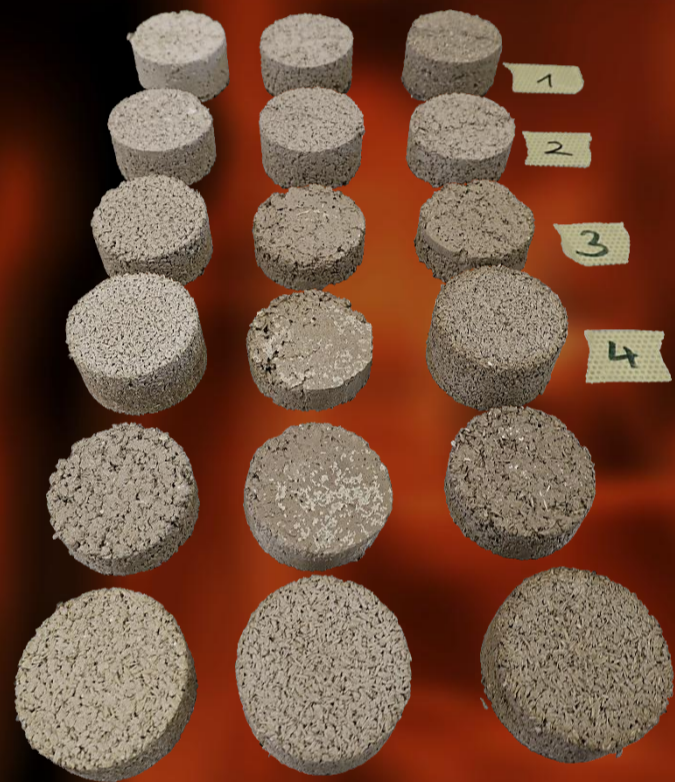
ReFine BioFireboard

BIO-BASED FIREPROOF INSULATION

We are researching the potential of recycled fine fractions for fire protection applications. Focusing on bio-based insulation materials, we aim to develop an innovative material that consists largely of recycled particles, offers excellent insulation properties, and provides high fire resistance.

The material is specifically intended for use in buildings with high safety requirements. By combining recycled materials and plant-based residues, we contribute significantly to reducing CO₂ emissions and promoting a sustainable construction industry. The project was initiated at TRL 3 and is expected to reach TRL 6 during the course of the project.

Traditionally, the most common insulation materials in this sector are made from primary raw materials. Our innovative approach aims to reduce or completely replace the share of primary raw materials in biocomposites by using fine fractions, which are by-products from the recycling of mineral construction waste.



The global market for fire protection systems is expected to grow to around USD 100 billion by 2030. The increasing use of passive fire protection systems, including fire-resistant materials and structural components in the construction industry, is boosting market presence and driving demand for advanced fire protection solutions. As a result, the segment of commercial and public buildings has been identified as potential early adopters.

This target group must meet the highest fire protection requirements as well as safety and sustainability standards—especially in new construction and renovation projects in urban areas, such as high-rise buildings, production and storage facilities, hospitals, and schools. Customers rely on materials that meet the highest technical standards while also promoting circular economy and bioeconomy principles to reduce building-related emissions.