



FIBER-REINFORCED CONCRETE WALL

Construction system for one- and two-story concrete houses



DEPARTAMENT OF CONSTRUCTION
ENGINEERING AND MANAGEMENT/
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AND GEOTECHNICAL ENGINEERING



INDUSTRIAL SECTOR
INFRASTRUCTURE



DEVELOPMENT
TRL 9

PROBLEM



Construction of one- and two-story reinforced-concrete houses has increased in Chile in recent years. Because reinforced concrete has high strength, these houses provide greater structural capacity than necessary. Their construction process is also labor-intensive because wall construction requires the installation of reinforcement and placement of concrete.



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Intellectual property
Trademark registration.

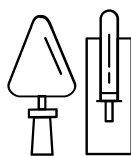
Development status
The technology is ready for
commercialization.

SOLUTION



The proposed solution is a new construction system for one- and two-story concrete houses. It replaces the traditional process, which uses reinforcing steel bars and mesh, with fibers incorporated directly into the concrete. This simplifies construction, increases productivity, and reduces direct and indirect costs.

MARKET



Globally, the fiber-reinforced concrete market was valued at USD 2.6 billion in 2023 and is expected to grow to USD 3.5 billion by 2028. The target market comprises construction companies and real-estate developers involved in building one- and two-story houses.

ADVANTAGES



Simplifies the
construction process.



Reduces construction
time.



Reduces on-site labor
requirements.



Increases productivity.