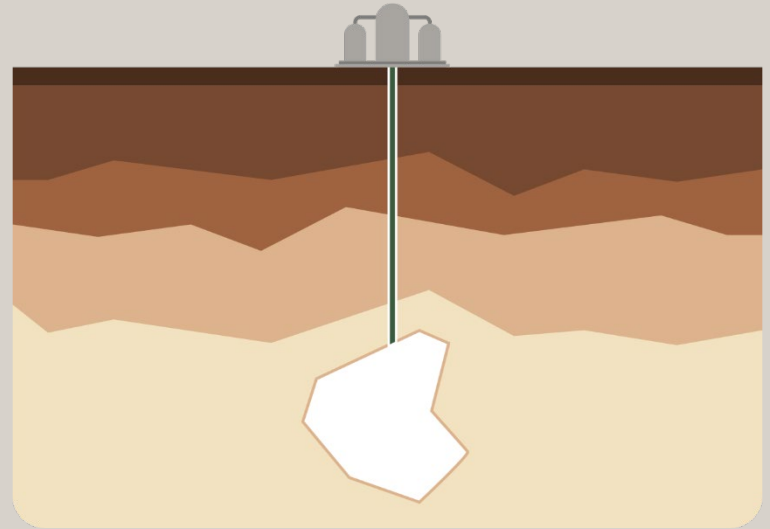
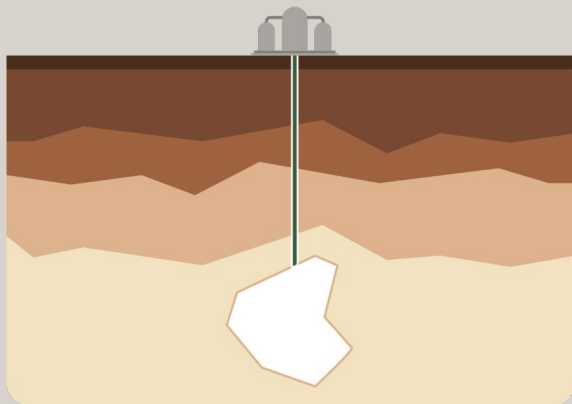


Dramix® steel fiber reinforcement

Permanent spray concrete lining
for durable reinforcement

Underground H₂ storage reinforcement





Trends in hydrogen storage solutions

- The use of hydrogen in power generation is still limited by several challenges, including the high cost of hydrogen production, the need for more extensive infrastructure **and storage**.

Underground hydrogen storage is a promising solution for large-scale, long-term, and safe storage of hydrogen.

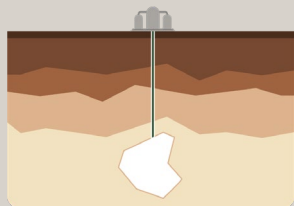
Storage options:

- **Salt Caverns:** Hydrogen-filled cavities can act as a backup for a pipeline network
- **Porous Reservoirs**
- **Natural Underground Hydrogen Production and Storage**
- **Other Manmade Spaces:** such as depleted gas fields, saline aquifers, or engineered hard-rock caverns

Hydrogen storage underground is a promising option for large-scale applications, but more research is needed to fully optimize these methods..

End-use

Hydrogen storage



**Dramix®
steel fibers**
for lining of
caverns

Dramix® for permanent concrete lining



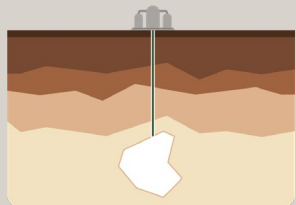
Permanent spray concrete lining

The process of Sprayed Concrete Lining involves layering shotcrete onto the tunnel's surface, ensuring stabilization and creating a durable tunnel lining.

PSCLs will have a positive impact on the sustainability of underground spaces and increase their viability and potential uses

Dramix is the perfect choice for permanent linings

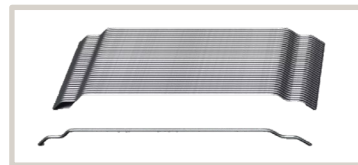




**Dramix®
steel fibers**
for lining of
caverns

Build sustainably, with fibers

- **Dramix® steel fibers** bridge the crack at very small crack openings, transfer stresses and develop post crack strength in the concrete.
- Traditional reinforcement is provided at distinct locations of concrete, whereas **steel fibers form a homogeneous reinforcing network across the entire concrete cross-section**, thus providing **increased strength, ductility** and **post-crack properties** throughout the entire structure.



**Want to
know
more?**



[Download the brochure](#)

Concrete with traditional reinforcement Steel fiber reinforced concrete

Sustainability	●●○	●●●
Total cost of ownership	●○○	●●●
Performance and Durability	●●○	●●●
Faster and safer	●○○	●●●