



Relief yourself from the pain of cryocooling.



CRYOPERL®



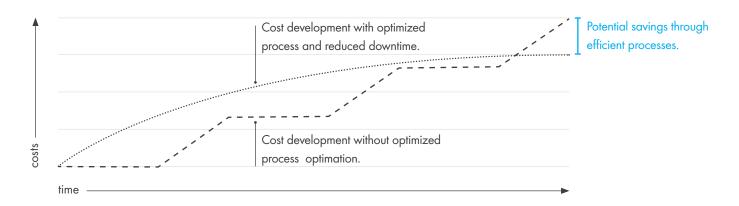


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Approximately 30% of the global energy demand is covered by natural gas. LNG in particular, as an extremely transport- and storage-friendly variant, represents a significant contribution to a clean and environmentally friendly energy supply. Liquefaction of the gas reduces its volume to 1/600 of its original volume. This liquefaction takes place by extremely cooling the gas from approx. 40°C to minus 163°C. The competent handling of extremely low temperatures during liquefaction and subsequent storage is thus one of the key success factors in the planning, construction and operation of LNG plants.

Full service providers are usually responsible for the engineering, procurement, construction and start-up supervision of the plants, whose capacities range up to 900 tons per day.

It stands to reason that given these project scopes, which typically have a duration of several years, cost savings through smart and lean processes have a much higher potential to improve project economics than savings on materials or components.





How to increase project profitability through process optimization with CRYOPERL®.

Potentential risks along supply chain.

Producer

- Influencing factors along supply chain
- > Scale
- > Raw Material Availability

Shipping



- > Shipping risks
- > Custom Issues

Filler

- > Coordination risks
- > Quality and warranty risk

Risk limitation with Knauf full service.



- One person of contact
- > Mine Shareholder
- > 3 production facilities
- > Production on site
- > Global Scale

Simplified process with only one contact facing customer.

As a total service provider for the complete insulation value chain, KNAUF ensures maximum efficiency and flexibility:

> unlimited availability of raw perlite due to own mine participation in Milos, Greece.

Supply bottlenecks due to limited availability of raw perlite can put a project behind schedule through no fault of the full service provider. CRYOPERL® by Knauf offers highest supply security in the market due to own raw perlite projects.

> expansion of raw perlite close to consumption or directly on the construction site.

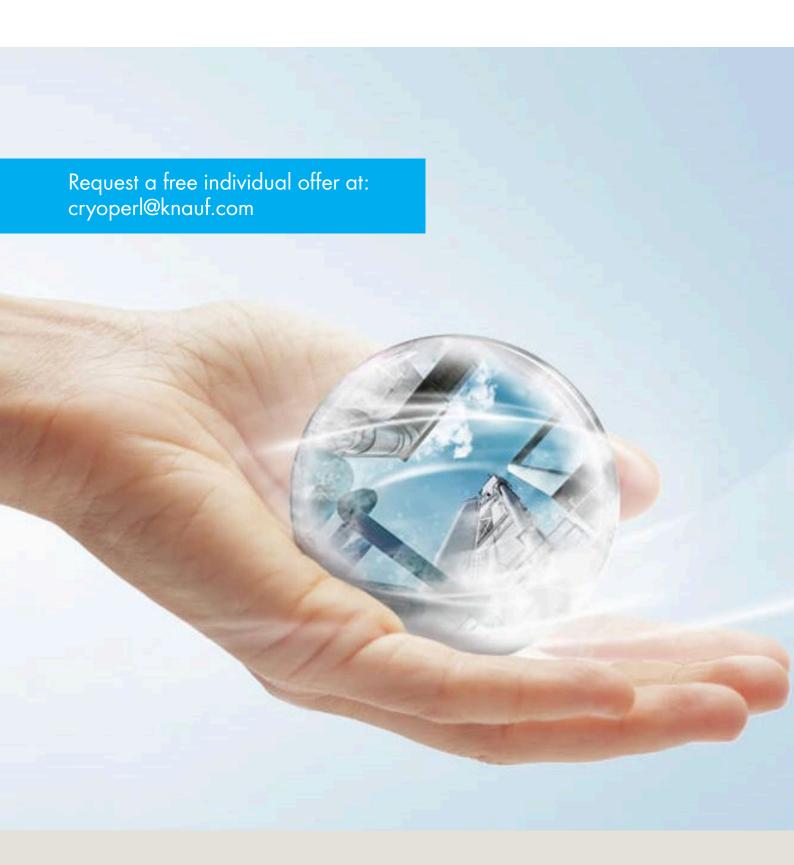
We produce CRYOPERL® from raw perlite at three different locations with a total expansion volume of 1000m³ per day. Or directly at your site with one of our transportable production plants.

> qualified professionals along the entire value chain.

Our exclusive partner for the complete logistics from delivery to backfilling and removal of the used, recyclable CRYOPERL® has been on the market for 80 years and specializes in silo transport and suction-pressure silo trains with vacuum technology. Its specialist knowledge has already been put to use in the construction of the largest LNG gas liquefaction plant to date in Hammerfest, Norway.

Communication and project handling costs can be reduced significantly by choosing the CRYOPERL® full service offer.





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