Bulk Storage System Design

Composite Super Insulation™ vs. Perlite

Vacuum Space
Designed with chemical maintenance system for long service life

Inner Pressure Vessel
Stainless steel design, tested and certified to ASME Section VIII Division 1 code

Inner Vessel Supports
High strength to low heat leak design for long life and low thermal loss

Annular Lines
Designed for maximum flow, minimal heat leak and long-term durability

Leg Design
Heavy-duty design & fabrication exceeds most seismic loading standards

Outer Jacket Finish
Finished with a high-gloss urethane commercial grade paint to withstand the elements

Composite Super Insulation™
Wrapped with a proprietary foil/glass insulation system to protect against heat loss – outperforms other insulations, including perlite

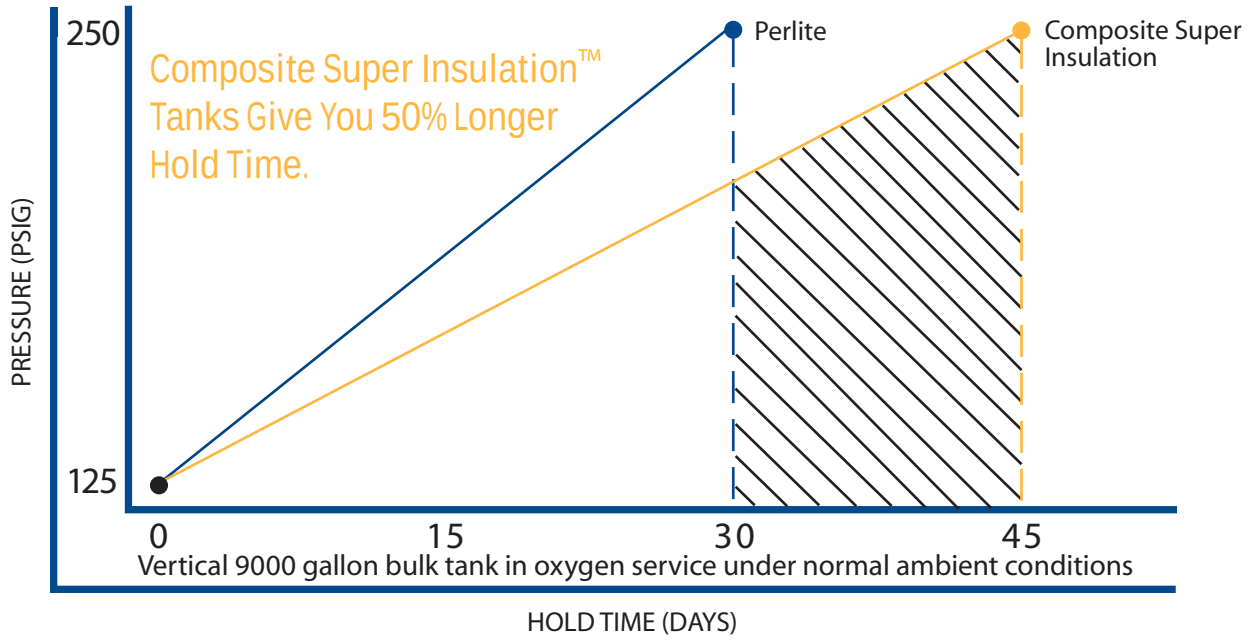
Liquid Level Gauge
We offer the state-of-the art Tank-Tel electronic gauge or an analog gauge for telemetry integration or local readout with alarms

Modular Piping System
High flow design built with rugged welded stainless steel for long-term durability

See The Difference

At Chart we have always taken pride in developing the best thermal insulation system possible in our cryogenic bulk tanks. Years of experience have driven us to engineer our multi-layer Composite Super Insulation™ system to achieve the ultimate thermal protection in our cryogenic bulk storage equipment. Providing the best insulation system to protect your valuable gases from harsh ambient conditions results in lower pressure rise and lower losses, yielding better gas utilization. Our Composite Super Insulation and Chart Vacuum Technology® is at the core of why Chart bulk tanks are recognized around the world as the premier cryogenic bulk storage tank.

Pressure Rise Comparison from 125 psi to Relief Valve



Clearly, the Composite Super Insulation™ has it all.

COMPOSITE SI	Key Features	PERLITE
☑ 114	Diameter (in)	❑ 118
☑ 29,400	Tare Weight (lbs)	❑ 38,400
☑ 0.1	NER (%)	❑ 0.15
☑ 45	Hold Time (days)	❑ 30
☑ 1,035	Losses at MAWP (SCFD)	❑ 1,550

Note: All values based on a vertical 9000 gallon bulk tank half-full in oxygen service at 125 psig under normal ambient conditions. Published values posted online.
SCFD = Standard Cubic Feet per Day

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