

AMALPHI 40' ADVANCED VACUUM LNG ISO TANK: HIGH-INERTIA STORAGE SERIES

186-Day Holding Time | 9mm Vessel Design | Strategic Reserve Ready

OVERVIEW: THE "VIRTUAL PIPELINE" SOLUTION The AMALPHI High-Inertia 40' ISO is engineered specifically to solve the "boil-off clock" in high-ambient supply chains. Unlike standard containers that require rapid venting, this unit utilizes a **reinforced 9mm inner vessel** and proprietary multi-layer insulation to deliver a certified **186-day passive holding time**. This allows operators to utilize the ISO tank not just for transport, but as **static, zero-loss buffer storage** for 6 months and beyond.

KEY OPERATIONAL ADVANTAGES

- **Zero-Loss Logistics:** 186-day holding time eliminates venting risks in tropical/desert climates +50°C.
- **High-Inertia Thermal Mass:** The **9mm inner vessel wall** acts as a thermal buffer, significantly slowing pressure rise compared to standard 4mm/6mm lightweight tanks.
- **Vertical Density:** Reinforced frame supports a **192'000 kg stacking load**, allowing for high-density storage in limited depot space.
- **Intermodal Ready:** Fully certified for global Road (ADR), Rail (RID), and Sea (IMDG) transport.

TECHNICAL SPECIFICATIONS

Category	Specification
Container Type	40' Advanced Vacuum ISO Cryogenic Tank (UN T75)
Nominal Volume	36'600 Liters (±1%)
Holding Time	186 Days (Certified at 0.15 MPa abs / -156°C)
Inner Vessel Thickness	9mm (High-Inertia Design)
Max Payload	16'100 kg
Tare Weight	14'380 kg (±1.5%)
Stacking Capacity	192'000 kg (Allowable top container stacking weight)

PRESSURE & TEMPERATURE RATINGS

Parameter	Rating
Max. Working Pressure	0.6 MPa (6 Bar)
Design Pressure	0.76 MPa
Ambient Op. Temp	-40°C to +50°C
Design Temperature	-196°C (Inner Vessel)

CONSTRUCTION & MATERIALS

- **Inner Vessel:** Stainless Steel (X6CrNiTi18-10) – **9mm nominal thickness**.
- **Outer Vessel:** Low Alloy Steel (P355NL2) or Stainless Steel.
- **Insulation:** Proprietary multi-layer super-insulation under high vacuum.
- **Smart Ready:** Designed for integration with Industry 4.0 IoT/Digital Twin telemetry for real-time pressure and level monitoring.

CERTIFICATIONS

- **Classification:** Bureau Veritas (Paris).
- **Compliance:** ASME VIII div1, EN 13530-2/A1, IMDG, RID, ADR, CSC, CCC, ISO 668:2013.