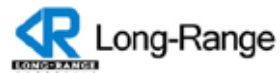


# LONG-RANGE CRYOGENIC COMPOSITE INSULATION



LONG-RANGE MANUFACTURE THIS HIGH QUALITY MULTI-LAYER COMPOSITE OPTION BY ROLLING THE ALUMINIUM FOIL TOGETHER WITH THE INORGANIC PAPER IN COMBINED LAYERS FROM ONE TO FIVE PAIRS. THIS OPTION IS NORMALLY USED IN THE 5 TIMES PAPER AND 5 TIMES FOIL OPTION BY MOST USERS GLOBALLY.



## TECHNICAL INFORMATION

### Width Range:

60mm to 1800mm to your specification (minimum quantities may be required)

### Standard Widths:

90mm, 910mm, 1310mm, 1710mm, 1800mm

### Composite Layers:

(A\*+B\*) x 1, (A+B) x 2, (A+B) x 3, (A+B) x 5

### Temperature Range:

-452°F to 932°F (-269°C to 500°C)

## KEY BENEFITS

### 5x quicker install time:

- Ex-stock in Europe and beyond minimising your bulk purchases.
- The multi-layer, combined option strengthens the insulation materials.
- Drastically reduces the install time and increases your productivity.
- Reduces paper and foil waste.
- Suitable for all your equipment including oxygen vessels.
- Enhances installation efficiency and improves your bottom line.

\*A = Aluminium foil & \*B = insulation paper

## APPLICATIONS

Cryogenic Vessels, Microbulk, Dewars, Cryogenic Railcars, ISO Tanks, Vacuum Jacketed Pipe, etc.

## TECHNICAL REPORTS

The following technical reports are available to give additional detail to support your selection:

- **Test report 01S03:** Effective Thermal Conductivity Coefficient Test
- **Test report 04S11:** Material Outgassing Test at High Temperature (120°C)
- **Test report 03S10:** Material Outgassing Test at Normal Atmospheric Temperature
- **Installation Guide**

## SPECIFICATION

Items	Insulation Material	Aluminium Foil
<b>Thickness</b>	0.06±0.01mm	0.0065mm
<b>Weight</b>	13.5±1 g/m <sup>2</sup>	17±1 g/m <sup>2</sup>
<b>Tensile Strength</b>	≥0.03 KN/m	≥0.4 KN/m
<b>Moisture Content</b>	≤0.5%	-
<b>Organic Content</b>	≤0.5%	-
<b>Ensemble Thermal Conductivity</b>	<1.5x10 <sup>-4</sup> w/m•k	
<b>Cryogenic Out-gassing (Static State 1h)</b>	<1.0x10 <sup>-8</sup> Pa•m <sup>3</sup> /s•g	
<b>Temperature Range</b>	-269°C – 500°C	

## COMBINED PAPER PERFORMANCE

The graph on the right shows the conductivity performance that is achieved by the high level of quality control established throughout the business.

## CONDUCTIVITY PERFORMANCE

