

CryoTape® ACP Technical Datasheet

Cryogenic Adhesive Tape — Aluminum Coated PET Tape with Modified Acrylic Adhesive
High-Performance Cryogenic Tape for Extreme Temperature Applications

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PRODUCT DESCRIPTION

CryoTape® series from East Far are a family of cryogenic-temperature, lightweight adhesive tapes engineered to secure and bond CryoMLI® series insulation materials in cryogenic environments, including liquid helium (4K) applications. Drawing on thermal control expertise and manufacturing excellence, combined with extensive field experience in aerospace, transport cryogenic vessels, and medical applications, East Far delivers customized solutions to ensure optimal performance under the most demanding conditions. CryoTape® ACP combines an aluminum-coated PET substrate with a cryogenic-grade modified acrylic adhesive, providing high tensile strength and reliable vapor barrier performance from 4K to 393K continuous.

PRODUCT CONSTRUCTION

Structure	Aluminum Coated PET / Modified Acrylic Adhesive (Cryo)
Substrate Thickness	0.05 ±0.005 mm
Adhesive Thickness	0.03 ±0.005 mm
Total Thickness	0.08 ±0.01 mm
Length	50 m
Width	10 / 15 / 20 / 25 / 30 / 50 mm
Custom Width	Available (MOQ 2,000 rolls)
Adhesive Type	Modified Acrylic (Cryo)

Service Temperature: 4K (–269°C) - 393K (120°C) continuous / 423K (150°C) short-term

FEATURES

- ✓ High quality material — Liquid Helium (4K) compatible
- ✓ Highest tensile strength among acrylic adhesive tapes (140 N/25mm)
- ✓ Solvent resistance
- ✓ Aging resistance
- ✓ Excellent chemical stability
- ✓ Stable performance across extreme thermal cycling

TYPICAL PHYSICAL PROPERTIES

Note: The following technical information should be considered representative only and should not be used for specification purposes.

Test	Typical Value	Test Method
Tensile Strength	140 N/25mm	PSTC-131
Elongation at Break	50%	ASTM D-3759
Adhesion to Steel	12 N/25mm	ASTM D-3330
Shelf Life	24 months from date of manufacture	Internal
Application Temperature Range	4K (–269°C) - 393K (120°C) continuous / 423K (150°C) short-term	Application test
Initial Tack (Rolling Ball)	Steel Ball No. 14–16	PSTC-6
Instantaneous Initial Tack	>8.8 N/25mm (>900g)	PSTC-101
Low-Temp Performance (–30°C / –196°C)	No embrittlement, no delamination	Internal
Liquid Helium (4K) Field Proven	Confirmed reliable performance in actual LHe applications	Field

APPLICATION MARKETS

- ✓ Aerospace, aircraft and rocket parts
- ✓ Cryogenic vessels and transfer lines
- ✓ Liquid helium applications
- ✓ Superconducting cables
- ✓ Nuclear fusion cryogenic modules

Recommendation: To mitigate detachment risk from vibration during cryogenic tank transportation, it is recommended to wrap CryoTape® FiG as the outermost layer for additional mechanical protection.

CLASSIFICATIONS & COMPLIANCE

Fire Safety Properties	
Flame Spread Index (ASTM E84 / UL 723)	≤ 25
Smoke Developed Index (ASTM E84 / UL 723)	≤ 50
UL Classification	Class A (ASTM E84 / UL 723)
Backing Flammability	Self-extinguishing (Metallized PET)
Adhesive Flammability	Flame Retardant (Modified Acrylic)
UL 746C	Recognized
UL 510 (PSA Tape)	Compliant

Standards: Compliant with GB/T 31480-2015 · GB/T 31481-2015 (ISO 201010:2014) · NB/T 47059-2017

STORAGE & SHELF LIFE

- Storage:** Store in a clean, dry place. Recommended conditions: 4 – 26°C (40 – 80°F) and 40 – 50% relative humidity.
- Shelf Life:** 12 months from date of manufacture when stored under recommended conditions.

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