

# A397

## CRYOGENIC LABEL (-196°C)

### Description

Our cryogenic labels enable the reliable identification of plastic and glass vessels that undergo long-term storage in liquid nitrogen or deep-freezing. Printable via conventional inks, desktop laser, water-based ink-jet, and thermal transfer, they are ideal for use within clinical laboratories, biomedical research and other scientific environments.

With a cohesive bond high enough to withstand thermal shock, the labels can be directly immersed in liquid nitrogen at -196°C without risk of delamination. They can be variably printed via thermal transfer or laser, eliminating the use of marker pens for identification and so greatly reducing the risk of human error causing illegible marking or mislabeling. Users are also able to print the fine detail batch and barcodes required for small vials and test-tubes, ensuring all information is retained.

<b>Material</b>	50 µ polyester
<b>Finishing</b>	Satin
<b>Color</b>	White
<b>Adhesive</b>	PFC
<b>Liner</b>	White glassine paper

### Physical data

<b>Results</b>	Glass tube	-196 °C	✓ Pass
		-80 °C	✓ Pass
		-40 °C	✓ Pass
		-20 °C	✓ Pass
		+4 °C	✓ Pass
		Control	✓ Pass
	PP tube	-196 °C	✓ Pass
		-80 °C	✓ Pass
		-40 °C	✓ Pass
		-20 °C	✓ Pass
		+4 °C	✓ Pass
		Control	✓ Pass

Label samples applied to glass & PP tubes at 23°C / 50% RH and then exposed to below conditions. Pass indicates no label peeling or removal after exposure to test conditions. Application surface: glass tubes (10mmØ) / PP microtubes (10mmØ). Label size: 22mm x 25mm (label covers 70% of the circumference of the tubes)

### Conditions

- Immersion in Liquid N2 for 8Hrs at -196°C • Dry ice simulation test at -80°C for 1 week • Deep freezer simulating test at -40°C for 1 week
- Freezer simulating test at -20°C for 1 week • Refrigerator simulating test at 4°C for 1 week • Control at 23°C for 1 week

### Disclaimer

Values shown in this document are averages only. For legal reasons, we emphasize that the information on this data is available as is and that Altec gives no guarantees with respect to the accuracy and completeness nor with respect to interpretations made on the basis of this information.