



Don't get left out in the cold!

Cryogenic Labels

When your application requires a sub-zero temperature, you need a label that you can rely on to adhere without lifting or falling off. LGI International's new cryogenic product line reliably performs in these adverse conditions. Whether you have a standard label application or a unique problem that requires a custom engineered solution, you can count on LGI's cryogenic labels to see the job through.

Engineered solutions

Setting the mark for our industry, LGI works closely with leading material suppliers at the design level to engineer technically superior products tailored to the needs of our customer base. As a result, LGI's cryogenic line offers tear resistant synthetic materials that will not be weakened by moisture or extreme cold conditions. Our materials are top coated for use with thermal transfer printers and can be preprinted, serialized, barcoded or customized to your specific needs.

Reliable adhesives

LGI's cryogenic adhesives, when applied to a wide range of clean surfaces such as plastic or glass at room temperature, will withstand temperatures to $-80^{\circ}\text{C}/-112^{\circ}\text{F}$. Whether you require a label that will adhere in extremely low temperatures for clinical specimens, pharmaceutical suspensions or preservation of perishable items, you can count on LGI's labels to perform reliably every time.

Product Highlights

- Aggressive adhesion
- Withstands temperatures of $-80^{\circ}\text{C}/-112^{\circ}\text{F}$ to $75^{\circ}\text{C}/167^{\circ}\text{F}$
- Moisture resistant
- Multiple freeze-thaw cycles
- Durable, synthetic materials
- Thermal transfer printable

Useful Applications

- Clinical trial specimens
- Pharmaceutical preservation
- Laboratory research
- Product/sample ID
- Preprinted forms



 **LGI International**
Advancing the technology of labels

Cryogenic Products



Specifications for LGI's Cryogenic Label Products

LGI Material	Substrate					Liner			Processing					
	Thickness	Color †	Finish ††	Adhesive Thickness	RoHS Compliant †††	50# Kraft Paper	40# Glassine	.0015" Blue Polyester	Temperature Range	Liquid Nitrogen Stainless Steel §	Liquid Nitrogen Glass Flat §	Liquid Nitrogen Polypropylene Curved §	Liquid Nitrogen Polypropylene Flat §	Steam Autoclave §§
LG-1536 Polyester **	.0022"	W	M	.0018"	●		●		-200° to 149°C (-328° to 300°F) *	●	●		●	●
LG-4050 Polypropylene	.0023"	W	G	.0006"	●	●			-200° to 80°C (-328° to 176°F) *	●	●	●	●	●
LG-4052 Polypropylene	.0020"	C	G	.0006"	●	●			-200° to 80°C (-328° to 176°F) *	●	●	●	●	
LG-4500 Polypropylene	.0016"	W	S	.0008"	●			●	-200° to 80°C (-328° to 176°F) *	●	●	●	●	●
LG-4501 Polypropylene	.0030"	W	M	.0005"	●	●			-200° to 60°C (-328° to 140°F) *	●	●	●	●	●
LG-4950 Polyester	.0020"	W	G	.0005"	●	●			-200° to 150°C (-328° to 302°F) *	●	●	●	●	●

LGI's Thermal Transfer Ribbons

LGI-330	Black - IPA resistant, premium resin thermal transfer ribbon. Width and length are fully customizable.
LGI-310	Black - Premium resin thermal transfer ribbon. Width and length are fully customizable.
LGI-200	Black - General use wax/resin thermal transfer ribbon. Width and length are fully customizable.

† W - White C - Clear

†† M - Matte G - Gloss S - Semi-gloss

††† RoHS compliance subject to change. For verification, contact LGI

* Bond results may vary depending on surface of adhesion; testing to actual application environment is recommended.

** Highly resistant to chemicals, including IPA and Acetone

§ Liquid nitrogen test was performed for one three hour cycle and brought to ambient temperature

§§ Steam autoclave test was performed for 20 minutes at 275° F (135° C) at 27psi

Results may vary; testing to actual application environment is recommended.

