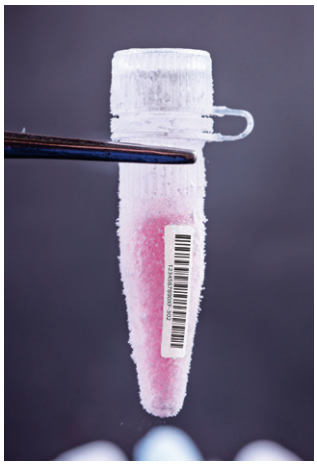
POLYONICS®

Innovative Materials for Harsh Environments

Medical, Cryogenic and Laboratory Label Materials

Laboratory and Cryogenic Labeling

Polyonics manufactures a family of 127µm (5mil) Nylon label materials for use in laboratory and cryogenic (freezer storage) applications. The materials include durable print surfaces that can be printed via thermal transfer, dot matrix or hand marker, They are available in two grades of Nylon and either 25µm (1 mil) or 50µm (2mil) pressure sensitive adhesives (PSA), with the thinner PSA being ideal for wrapping labels around small radiuses.



The Polyonics Nylon label materials provide excellent resistance to harsh chemicals such as sodium hydroxide, mineral spirits, etc. In addition, the materials have been tested and approved by third party laboratories for use on glass tubes and slides, along with polypropylene tubes, vials, etc. in liquid nitrogen exposure to -196°C (-320°F).

Features and Benefits:

- Conforms to curved and/or contoured surfaces
- Strong adhesion at low temperatures
- Thermal transfer and dot matrix printable
- Pen and marker writable
- Chemical resistant
- REACH and RoHS compliant

Applications:

- Laboratory ID and tracking
- Plastic and glass surfaces
- Test tubes, slides, vials, etc.
- Cryogenics, freezer storage
- Metal plates
- Lightly textured surfaces

Medical Device Labeling

Polyonics manufactures thermal transfer and laser markable label materials for ID and tracking of medical devices. They include materials that comply with the UDI initiative having been tested to the UL/IEC 60601-1 and UL/IEC 61010-1 for coating durability. The REACH and RoHS compliant materials include polyimide (PI) and polyester (PET) films—renowned for dimensional stability and chemical resistance in high and low temperature, harsh environment tracking applications.

Polyonics coats the films with durable, cross linked polymer coatings that allow either thermal transfer printing with a wide range of inks or ablation and cutting by a variety of lasers. Both imaging methods produce long lasting, high contrast linear and 2D bar codes and alpha numeric characters.

Features and Benefits:

- Highly durable
- Temperature and chemical resistant
- High strength PSAs including low surface energy options
- Halogen free, REACH and RoHS compliant
- Thermal transfer printable and laser markable options
- Low out gassing options

Applications:

- ID and tracking of medical devices
- UDI tracking
- Multi-cycle sterilization
- Multi-cycle detergent wash

Product	Film/Face	Adhesive	Total Thickness	Ribbon	Features
Laboratory & Cryogenic					
XF-300	127 µm (5mil) high opacity matte white woven Nylon	50 µm (2 mil) acrylic	177 µm (7 mil)	DNP R510, Ricoh B110A, D110A, Ilmak SP330	Thermal transfer printable (TTP), UV resistance per ASTM G154, tested and approved in liquid nitrogen at -196°C. Operational: -40 to 145°C
XF-301	127 µm high opacity matte white woven Nylon	25 µm (1 mil) acrylic	152 µm (6 mil)	DNP R510, Ricoh B110A, D110A, Ilmak SP330	TTP, UV resistance per ASTM G154, recognized by UL969 and CUL, flexible for small radiuses, tested and approved in liquid nitrogen at -196°C. Operational temp: -40 to 145°C
XF-302	127 µm high opacity matte white woven Nylon	25 µm acrylic	152 µm	DNP R510, Ricoh B110A, D110A, ITW B324, Ilmak SP330	TTP, economical, UV resistance per ASTM G154, flexible for small radiuses tested and approved in liquid nitrogen at -196°C. Operational temp: -40 to 145°C
Medical Device					
XF-455	50 µm gloss white PET	25 µm low surface energy acrylic (LSE)	76 µm (3 mil)	DNP R510, ITW B324, Ricoh B110CR, Armor AXR 7+, IIMAK SP330	TTP, strong bonds to PP, PE and TPO plastics, auto apply, chemical resistance per GMW 14573/GM 1621M Class B. Operational temp: -40 to148°C
XF-583	25 µm matte white PI	25 µm acrylic	64 µm (2.5 mil)	Ricoh B110CR, C, Armor AXR7+, 8, Union Chemicar US300	TTP, high temperature chemical resistant, low out gassing per ASTM E595 Operational temp: -40 to 148°C
XF-670	43 µm black antistatic PI	25 µm LSE	71 µm (2.8 mil)	NA	Laser markable, high temperature and harsh chemical resistant, static dissipative and low charging per ANSI/ESD S20.20, halogen- free, REACH, RoHS and UL/IEC 60601/61010 compliant. Min. apply temp: 0°C. Temp. range: -70° to 260°C
XF-672	35 µm TruWhite™ PI	25 µm LSE	63 µm (2.5 mil)	NA	Laser markable, abrasion resistant white top coat, low soot, halogen-free, REACH, RoHS and UL/IEC 60601/61010 compliant. Min. apply temp: 0°C Temp. range -70 to 260°C

For further details or to receive samples please contact us at **603.352.1415** *or* **info@polyonics.com**

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RoHS Compliant
SJ/T11364-2006 & EU202/95/EC 2003/11/EC 76/69/EEC

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