



## Freezer Labeling Supply Selection Guide

Labels used in cold temperature applications need to reliably stay in place and also resist damage from moisture. Resistance to damage from abrasion and smearing are also often a factor. Adhesives need to perform when temperatures drop, but in some applications, also hold when labels are applied at cold or frigid temperatures.

### KEY APPLICATIONS

- Cold storage
- Freezer
- Cryogenic applications



### Cold Storage and Refrigerated Warehouses

Labels are critical for identifying and locating items in the warehouse, and can present a challenge in cold storage applications. Labels for refrigerated warehouses must be able to be applied and remain in place at low temperatures.

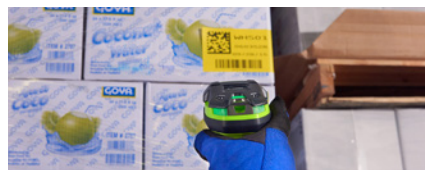
*Top recommended products for cold storage label applications:*

Product Name	Material	Adhesive	Key Attributes	Durability
Z-Perform 2000T All Temp	Thermal transfer paper	All-temp permanent acrylic	Can apply to surfaces as cold as -20° F, meets FDA 175.105 indirect food contact requirements, excellent high speed print quality, topcoating makes this ideal for fanfolding	Limited resistance to moisture, abrasion and chemicals
Z-Select 4000T All Temp	Thermal transfer paper	All-temp permanent acrylic	Can apply to surfaces as cold as -20° F, meets FDA 175.105 indirect food contact requirements, excellent high speed print quality, topcoating makes this ideal for fanfolding	Limited resistance to moisture, abrasion and chemicals
Z-Select 4000D	Direct thermal paper	All-temp permanent acrylic	Can apply to surfaces as cold as -20° F, meets FDA 175.105 indirect food contact requirements	Limited resistance to moisture, abrasion and chemicals
Zebra Specialty 8000D IR	Direct thermal paper	All-temp permanent acrylic	Scannable in visible and infrared ranges; meets FDA 175.105 indirect food contact requirements	Limited resistance to moisture, abrasion and chemicals; can be read by Infrared (IR) scanners, allowing readability through moderate dirt and grime

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Product Name	Material	Adhesive	Key Attributes	Durability
IQ Color 2000D All Temp	Direct thermal paper	All-temp permanent acrylic	Provides the ability to print in pre-defined color zones to be used as a visual cue	Limited resistance to moisture and abrasion
8000D Shelf Label	Direct thermal matte polypropylene	All-temp permanent acrylic	Can apply to surfaces as cold as -20° F, available in white	Limited resistance to moisture, good smear/scratch resistance
8000T Low Temp Matte	Thermal transfer matte polyolefin	Cold-temp permanent acrylic	Can use as low as -112° F; performs in repeated freeze and thaw cycles	Resistant to moisture and weak chemicals, some smear/scratch and chemical resistance, very good resistance to dirt, blood, and water



## Freezer

Frozen foods or other frozen products require labels with permanent adhesives and that can withstand moisture caused by freeze and thaw cycles.

**Top recommended products for refrigerator/freezer label applications:**

Product Name	Material	Adhesive	Key Attributes	Durability
8000T Low Temp Matte	Thermal transfer matte polyolefin	Cold-temp permanent acrylic	Can use as low as -112° F; performs in repeated freeze and thaw cycles	Resistant to moisture and weak chemicals, some smear/scratch and chemical resistance, very good resistance to dirt, blood, and water
IQ Color 2000D All Temp	Direct thermal paper	All-temp permanent acrylic	Provides the ability to print in color in zones on the label	Limited resistance to moisture and abrasion, some smear/scratch and chemical resistance, very good resistance to dirt, blood, and water
PolyO 4000T	Thermal transfer highly flexible corona-treated polyolefin	All-temp permanent acrylic	High initial tack; meets FDA 175.105 indirect food contact requirements; -40° to 176° F temperature range	Resistant to moisture and weak chemicals, some smear/scratch and chemical resistance, very good resistance to oil, alcohol, dirt, blood, and water
PolyPro 3000T Gloss	Thermal transfer gloss polypropylene	Permanent acrylic adhesive	meets FDA 175.105 indirect food contact requirements; Can apply labels at temperatures as low as 23° F	Resistant to moisture, abrasion and chemicals



## Cryogenic

For cryogenic labeling applications for healthcare, laboratory, chemical and other industries, label adhesive must be tested to perform in extremely low temperatures and the label should resist damage from moisture and condensation.

**Top recommended products for cryogenic label applications:**

Product Name	Material	Adhesive	Key Attributes	Durability
8000T CryoCool	Thermal transfer polypropylene	Permanent acrylic	Adhesive performance at extremely low temperatures down to -320° F; can withstand conditions such as dry ice (-112° F), steam autoclave, and gamma radiation	Resistance to moisture and both moderate and harsh chemicals, excellent smear/scratch resistance
8000T Low-Temp Gloss	Thermal transfer "gloss" polypropylene	Cold-temperature permanent acrylic	Performance down to -112° F	Resistance to moisture and both moderate and harsh chemicals, resistance to repeated freeze and that cycles, good smear/scratch and chemical resistance, very good resistance to dirt, blood, and water
8000T Low Temp Matte	Thermal transfer matte polyolefin	Cold-temp permanent acrylic	Can use as low as -112° F; performs in repeated freeze and thaw cycles	Resistant to moisture and weak chemicals, some smear/scratch and chemical resistance, very good resistance to dirt, blood, and water