

CM5662

Cold Storage Permanent Direct Thermal Label
Product Data Sheet



DESCRIPTION

CM5662 is a phenol-free Matte white polypropylene film with a removable pressure-sensitive acrylic adhesive, top-coated for direct thermal printing. CM5662 has excellent cold-resistance, wet-rub, humidity, & chemical resistance. Designed for use in critically controlled environments and cold storage.

APPLICATIONS FEATURES

- Medium tack adhesive that removes residue-free on most surfaces.
- High black optical density and remains legible when frozen
- Ultra-low outgassing adhesive
- Excellent IPA and solvent resistance
- Non-shedding and cleanroom compatible
- Tear, crinkle, and scratch resistance

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Face Stock Description

Physical Data		
Property	Unit/Test Method	Value
Average Thickness	mils	2.6 ± 0.5%
Black Optical Density (KOD)	NA	1.25 (Max)

Resistance Data		
Water (change in KOD)	Submerged in water for 48 hr. & dried	No change in KOD measured
Wet rub (change in KOD)	Rubbed printed label with finger 50x after 48 hr. water test	No change in KOD measured
Cold resistance (change in KOD)	-40 °C 24 hr.	No change in KOD measured
Oil resistance (change in KOD)	Submerged in Olive oil for 24 hr.	No change in KOD measured
Solvent resistance (change in KOD)	Wet rubbed IPA, acetone, and xylene 50x with finger	No change in KOD measured

Adhesive Description

Performance Data		
Property	Unit	Value
Coat Weight	mils	1.0 ± 0.5%
Loop Tack - Stainless Steel	oz./in.	54.4
Peel (180°) - Stainless Steel (20 °C) Peel (180°) - Stainless Steel (-18 °C)	oz.in.	27.2 (24 hr.) 40.0 (72 hr.)
Minimum Application Temp.	°C	2
Temperature Service Range	°C	-80 °C - 70

Liner Description

Performance Data		
Property	Unit	Value
Liner Thickness	mils	1.5
Liner type		Clear PET

Label Storage

Storage Data		
Property	Unit	Value
Shelf-life	months	24
Storage condition	Temperature/Relative Humidity	20 °C at ≤50% RH

The above data represent product averages, allowing for industry-accepted variances. This construction should be tested in the end-use conditions to ensure it meets the specific application's requirements. Suitability for any given application is the responsibility of the user. **No MSDS is required per CF.1910.1200**

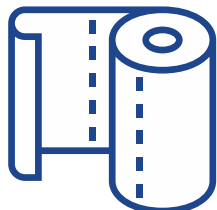


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Cold Storage Permanent Direct Thermal Label Label Application Instructions

Applying pressure-sensitive cleanroom labels requires precision and attention to detail to maintain the cleanliness of the environment. Here's a step-by-step guide on how to properly use and apply pressure-sensitive cleanroom labels:

Materials Needed:



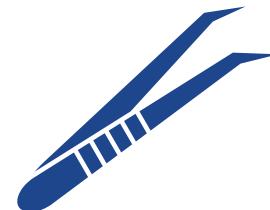
Pressure-sensitive
cleanroom labels.



Cleanroom wipes or
lint-free cloth



IPA or approved
cleaning solution



Tweezers (Optional,
for small labels)

Instructions:

1. Preparation:

- Before you begin, ensure that your hands are clean and dry. Consider wearing appropriate cleanroom attire, including gloves and a cleanroom gown.
- Set up a clean and organized workspace within the cleanroom environment.

2. Cleaning the Surface:

- Identify the surface where you intend to place the pressure-sensitive label.
- If the surface is not clean, gently wipe it using a cleanroom-compatible lint-free cloth or cleanroom wipe dampened with isopropyl alcohol or the recommended cleaning solution. This step is crucial to ensure proper adhesion of the label and prevent contamination.
- If your surface is frozen, wipe away any large ice crystals, which will impact adequate adhesion.

3. Peeling the Label:

- Carefully peel the pressure-sensitive cleanroom label from its backing material. Avoid touching the adhesive side of the label with your fingers to prevent transferring oils, dirt, or particles onto the adhesive surface.

4. Applying the Label:

- Hold the label using clean tweezers if necessary, especially for small labels, to avoid touching the adhesive side.
- Align the label precisely over the intended placement area. Gently lower the label onto the surface, starting from one edge and gradually pressing it down to the other edge.
- Avoid applying excessive pressure, as it might trap air bubbles or compromise the label's and the surface's cleanliness.
- Note: Please avoid hot surfaces with any direct thermal material, as this may result in the label turning black and making your print unreadable.

5. Smoothing and Adhering:

- Use a cleanroom wipe or lint-free cloth to smooth out the label from the center outward gently. This helps ensure proper adhesion and minimizes the risk of trapped air or wrinkles.

6. Final Checks:

- Inspect the label for any signs of wrinkles, misalignment, or air bubbles. If you notice any issues, gently lift the label using tweezers and reapply it, starting from step 3.
- Confirm the label is securely adhered to the surface without lifting edges or peeling corners.

7. Record Keeping (if applicable):

- In certain cleanroom environments, it might be necessary to document the label application process. This could include information such as the label's unique identifier, date of application, and the person responsible for the application.