

# Custom Label Solutions for Medical Applications



iD PRODUCTS

Your guide to building labels that hold  
under heat and pressure.

## MEDICAL DEVICE SOLUTIONS

# Protection against patient risk: Labels that perform under pressure

In a medical environment, labels are a critical link in the chain of care. Carrying warnings, barcodes, doses and patient instructions, labels have mission-critical information that must remain legible and intact in the harshest conditions.



This guide will help you select the right label materials for [high-performance medical applications](#), including curved containers, sterilized packaging and high-speed labeling systems.

In lab and clinical settings, labels must be engineered to endure sterilization, resist harsh chemicals, adhere to tight curves and integrate seamlessly with automated systems — without failing.

At [iD Products](#), our goal is simple: To help you create label solutions you can take for granted so you can keep your focus on excellent patient care.

### YOU'LL LEARN

Why material flexibility and adhesive strength matter in mandrel hold.

What adhesives survive sterilization without yellowing, peeling or degrading.

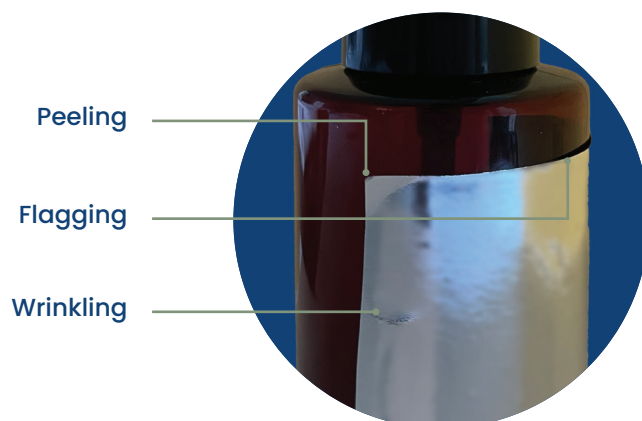
Which facestock and liner combinations support fast, reliable auto-application.







## Mandrel Label Design: Eliminate Peeling



### Prevent Label Lift on Tubes and Other Tight Mandrels

Labels that perform perfectly on flat surfaces often “misbehave” on curved ones like test tubes, syringes and specimen vials. Peeling, lifting and flagging are common issues. But with the right material construction, these label problems are preventable.

# 3

### Three essentials for optimal mandrel hold:



#### **Flexible facestock and overlamine:**

Rigid materials create tension on curved surfaces, which leads to edge lift. Polyethylene (PE) and polyolefin films conform easily to mandrels and reduce stress.



#### **Strong adhesive:**

Required to bond securely to low-surface-energy materials commonly used in mandrels, like glass and plastics.



#### **Low adhesive migration:**

Prevents seepage into label layers or substrates, helping preserve clarity, tack and cleanliness.

### TOP APPLICATIONS:



Prescription containers



Syringes and pre-filled vials



Lab specimen containers



# Sterilization-Compatible Materials: ETO, Gamma & Autoclave

## Labels that can take the heat and pressure

Sterilization methods like ETO, gamma radiation and autoclaving are essential in daily patient care — but they are harsh on traditional label materials. If they're not up to the task, they can shrink, yellow, bleed ink or delaminate — leading to scanning issues, errors or costly relabeling.



## PERFORMANCE FACTORS:

Maintains adhesion and clarity through heat, moisture and pressure.

Preserves printed data integrity — no smudging or fading.

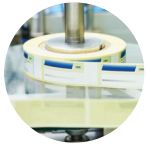
Resists tearing, chemical exposure and extended temperature extremes.

Supports elimination of microorganisms from the label surface.



# Built for Automation

## Labels That Keep the Line Moving



### Don't Let Labels Slow You Down

In clinical and lab settings, efficiency is everything. Labeling systems must be fast, flexible and dependable. While high-performance label printers like [Epson ColorWorks](#) support that workflow, your label materials must match their capabilities.



### WHY MATERIAL CHOICE MATTERS IN AUTOMATION

- ◆ Paper liners tear easily, causing jams and downtime.
- ◆ Poly liners hold up to heat and rapid processes, reducing stoppages and improving throughput.

### PERFORMANCE FACTORS

- ◆ Clean release from liners at high speeds
- ◆ Poly liners that resist tearing in humid/vacuum systems
- ◆ Die-cut precision that prevents jams
- ◆ Adhesive compatibility with flexible substrates like IV bags

### TOP APPLICATIONS

- ◆ IV bag labeling
- ◆ Diagnostic panel overlays
- ◆ High-speed pharmaceutical bottling
- ◆ Pre-filled syringe labeling

# Recommended 3M Materials for Medical Labels

	PRODUCT	ADHESIVE	FACESTOCK	LINER	MANDREL	RESISTS STERILIZATION*
	3M™ 7000 high white gloss paper	3M 320 High tenacity acrylic	60# High White Gloss Paper	43# DK	✓	✓
	3M™ 7000FL Performance Paper Label Material	3M 320 High tenacity acrylic	60# White High Gloss Paper	1.5 PET	✓	
	3M™ Durable Label Material 7790-IJ	3M 350 acrylic	5.0 Mil Polypropylene Water Based Inkjet	55# DK		✓
	3M™ Durable Label Material 7882-IJ	3M 400 acrylic	3.0 Mil Polypropylene Water Based Inkjet	55# DK		✓
	3M™ Durable Label Material 7871	3M 350 acrylic	2.0 Mil Polyester Versatile Print	55# DK		✓
	3M™ Durable Label Material 7816	3M 310 acrylic	2.0 Mil Polyester Versatile Print	55# DK		✓
	3M™ FP018902 Removable White Polypropylene Durable Label Material	3M P1410 permanent tackified acrylic	2.6 Mil Polypropylene	50# SC	✓	
	3M™ FP102 Clear Polypropylene Durable Label Material	3M P1410 permanent tackified acrylic	2.0 Mil Clear Polypropylene	50# SC	✓	

\*ETO, autoclaving and gamma



# Better Labels, Better Performance, Better Outcomes



## iD PRODUCTS

### GET FAIL-PROOF MEDICAL LABELING WITH CUSTOM SOLUTIONS BY iD PRODUCTS

Poorly performing labels can lead to unreadable barcodes, incorrect doses — even harm to patients. That's why every component — adhesive, facestock, overlamine and liner — is critical.

At iD Products, we specialize in custom label solutions that hold up under pressure. Need a test tube label that stays put through ETO sterilization? Or a liner that feeds cleanly through your auto-applier? We're ready to help.

Let's talk  
[Contact a  
label expert](#)

We're here to help with your  
custom label needs:

- ◆ Spec the right materials
- ◆ Die cut to your exact dimensions
- ◆ Ready to print on your Epson ColorWorks label printer.

info@idproducts.com  
800.243.9888  
Certified ISO 9001:2015

