



# TT451

## ESD-Safe Thermal Transfer Printable Label

TT451 is IDENTCO's electrostatic discharge (ESD) compatible labeling solution that enables reliable identification in ESD-controlled environments. This material protects sensitive electronics and maintains clear, durable traceability throughout manufacturing and handling processes.

Designed for component labeling, in-process identification, work-in-progress tracking and asset marking, TT451 ensures compliance with ESD protocols and traceability, simultaneously. This enables manufacturers to optimize print quality, durability and barcode readability while reducing risk, scrap and latent failures.

**The Durable Standard.**

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**IDENTCO**

### Features & Specifications

**Electronics manufacturers operating in ESD-protected areas require:**

- Labels that do not generate or hold static charge
- Compliance with ESD control programs (ANSI/ESD S20.20)
- Clear human-readable and barcode identification
- Stable adhesion on plastics, metals and coated surfaces
- Compatibility with automation and manual application
- Materials that do not compromise yield or product reliability

### Proven Performance

- Precise traceability throughout processes
- 99.9%+ scan accuracy with consistent print quality
- Enhanced material stability for zero shrinkage or distortion
- Manual or automatic application options
- Keeps production up and running
- Support available from our technical experts

# Explore Our Complete Electronics Portfolio

PCB applications demand reliable traceability and our labeling solutions are engineered to deliver. Whether you are looking to maintain application identification and tracking, comply with global regulations and standards, ensure component identification or increase safety information visibility, our range of solutions will protect your operations, reputation and customers.



## Front-End Process Material Selection

These materials are optimized for placement at the start of SMT lines or at pick-and-place stations, where labels will be exposed to high heat and wash cycles.

Attributes	Polyimide				Masking	
	TT403	TT416	TT433	TT451	PT200	PT205HD
<b>Performance</b>						
High Temp Exposure, 220°C+	✓	✓	✓	✓	✓	✓
Wave Solder or Reflow Exposure	✓	✓	✓	✓	✓	✓
Common Chemical Wash	✓		✓	✓	✓	✓
Potent or Custom Chemical Wash			✓			
4 Wash Cycles	✓		✓	✓	✓	✓
10 Wash Cycles			✓			
Printability	✓	✓	✓	✓		
<b>Compliance</b>						
UL, cUL, PPAP	✓	✓	✓	✓	✓	✓
ESD				✓		
RoHS, WEEE, Reach	✓	✓	✓	✓	✓	✓
Mil-Aero	✓		✓	✓	✓	✓
<b>Appearance</b>						
Glossy / White	✓	✓	✓	✓		
Tan					✓	✓

## End-of-Line & Back-End Assembly Material Selection

These materials are designed for post-process and back-end assembly lines, with low heat and no wash.

Attributes	Polyester							PP	Paper
	Circuit Board	Circuit Board & Enclosure		Enclosure					
	TT1770	TT700	TT748	TT730	TT741	TT756	TT723	TT600	TT533
<b>Performance</b>									
Temp Exposure, 150°C	✓	✓	✓	✓	✓	✓	✓		
UV Exposure		✓	✓	✓	✓	✓	✓		
Household Cleaning Chemistry		✓	✓	✓	✓	✓	✓	✓	
Potent or Custom Chemical Wash									
4 or 10 Wash Cycles									
Abrasion Resistant	✓	✓	✓	✓	✓	✓	✓	✓	
Printability	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Compliance</b>									
UL, cUL, PPAP	✓	✓	✓	✓	✓	✓	✓	✓	✓
ESD	✓								
RoHS, WEEE, Reach	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mil-Aero	✓	✓							
<b>Appearance</b>									
Glossy / White	✓	✓				✓	✓	✓	
Matte / White			✓						✓
Glossy / Silver				✓					
Matte / Silver					✓				