

# Duratek Labels.

## Technical Data Sheet (Product Number: DT1604)

### Duratek Autoclave Labels

#### 1. Product Description

Duratek Autoclave Labels are specially engineered identification labels designed to withstand repeated sterilization cycles in autoclave conditions (high temperature, pressure, and steam). They remain firmly adhered and fully legible after exposure, making them ideal for laboratory, medical, pharmaceutical, and research environments.

#### 2. Construction

Layer	Material	Key Properties
Face Stock	Polyester (PET) film, 50–75 µm	High durability, printable surface, chemical-resistant
Adhesive	High-performance acrylic adhesive	Withstands steam, high temperatures, and chemicals
Liner	Glassine or PET release liner, 60–80 gsm	Stable for die-cutting and label application

#### 3. Key Features

- Steam sterilization resistant (up to 121–134°C, 15–30 min cycles)
- Permanent adhesion on glass, plastics, stainless steel, and coated surfaces
- Resistant to moisture, ethanol, isopropanol, and common lab detergents
- Printable by thermal transfer, laser, and handwriting (using permanent marker)
- Available in **white, clear, or pre-printed formats**
- Customizable with barcodes, batch numbers, or color coding

#### 4. Typical Applications

- Laboratory sample and specimen identification
- Medical device and surgical instrument labeling
- Pharmaceutical and biotech sample traceability
- Research facility storage and sterilization tracking
- Hospital and clinical inventory management

## 5. Technical Performance

Property	Value	Test Method
Face Stock Thickness	50–75 µm	Caliper
Adhesive Peel Strength	12–18 N/25mm	PSTC-1
Autoclave Resistance	121–134°C, 15–30 min cycles, >100 cycles	Internal validation
Water/Steam Resistance	No peeling, no print loss	Immersion test
Chemical Resistance	Resistant to alcohols, mild solvents, detergents	In-house test
Print Compatibility	Thermal transfer, laser, UV	In-house test

## 6. Shelf Life & Storage

- **Shelf Life:** 12 months from date of manufacture
- **Storage Conditions:** 22°C ± 2°C, 50–55% RH, away from direct sunlight and heat

## 7. Compliance

- RoHS & REACH compliant
- FDA 21 CFR 175.105 adhesive compliance (indirect food contact)
- Suitable for ISO 11140 sterilization monitoring protocols

## Disclaimer

The above values are typical and not guaranteed. Users must verify suitability for specific applications before use.