



# Sterilization Labels



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Sterilization is a critical step to remove microbial contamination such as bacteria, fungi and viruses. These infective agents can be found not only on, specimen containers, but also within fluids and lab cultures. Clean, sterile environments are crucial to ensure accurate results. Additionally, items such as scalpels and thermometers must be sterilized often to avoid spreading disease.

## Some common sterilization processes include:

### Steam Autoclave

Steam heat is used to destroy microorganisms. This method includes high temperature conditions (up to 250°F) and humidity.

### Ethylene Oxide (EtO)

EtO is a colorless gas that is toxic to microorganisms. This method features slightly elevated temperatures (up to 140°F) and normal humidity levels (25-60% RH).

### Gamma Radiation

Radioactive Cobalt-60 emits gamma rays that kill microorganism at room temperature.

# SPECIFICATIONS AT A GLANCE\*

Zebra understands the various levels of heat, moisture, chemicals, gases, irradiation, pressure and filtration associated with these sterilization methods. Zebra has tested and identified the below label materials to ensure the label stays in place and is readable and scannable after being sterilized. Our recommended label materials feature an acrylic adhesive that will withstand the above sterilization processes. It also includes label materials that can withstand exposure to moderate and harsh chemicals, as well as abrasion and temperatures up to 302°F to ensure the label is readable and scannable during its useful life.

MATERIAL NAME	KEY FEATURES	RIBBON	STEAM AUTOCLAVE	GAMMA RADIATION	ETYLENE OXIDE (ETO)
Z-Select 4000T	Paper label featuring a high-tack permanent acrylic adhesive. Temps up to 200°F. Minimal resistance to moisture and chemicals.	5095 Resin or 3200 Wax/Resin	No	Yes	Yes
PolyPro 3000T High-Tack	Polypropylene label featuring a permanent acrylic adhesive. Temps up to 200°F. Smear, scratch and moisture resistant. Excellent for small curved surfaces. Resistant to moderate chemicals (alcohol, bleach)	5095 Resin	Yes	Yes	Yes
Z-Ultimate 4000T White High Tack	Gloss polyester label with a high-tack permanent acrylic adhesive. Temps up to 302°F. Excellent smear, scratch and moisture resistant. Resistant to harsh chemicals.	5095 Resin	Yes	Yes	Yes

Due to the number of variables in this application, Zebra recommends that you test these materials in your applications.



**Corporate Headquarters**  
+1 800 423 0442  
inquiry4@zebra.com

**Asia-Pacific Headquarters**  
+65 6858 0722  
apacchannelmarketing@zebra.com

**EMEA Headquarters**  
+44 (0)1628 556000  
mseurope@zebra.com

**Latin America Headquarters**  
+1 847 955 2283  
inquiry4@zebra.com

**Other Locations / USA:** California, Georgia, Illinois, Rhode Island, Texas, Wisconsin **Europe:** France, Germany, Italy, the Netherlands, Poland, Spain, Sweden, Turkey, United Kingdom **Asia Pacific:** Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam **Latin America:** Argentina, Brazil, Colombia, Florida (LA Headquarters in USA), Mexico **Africa/Middle East:** Dubai, South Africa

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