Direct Thermal vs. Thermal Transfer Labels

What’s the difference?

Direct Thermal

Direct Thermal Labels have heat applied directly to the label to create the pattern or image. The heat initiates a chemical reaction in the label which causes it to darken. The heater is in direct contact with the label.

Choose Direct Thermal if:
- label life is less than 12 months
- label will not be exposed to continuous sunlight
- label will not be exposed to harsh environmental conditions (i.e. dusty air, chemicals/abrasives in the air)
- label will not be exposed to high temperatures

Thermal Transfer

Thermal Transfer Labels require a ribbon when printing. Both the label and ribbon feed through the printer. The heat causes the ribbon to transfer the ink, or wax, onto the label. This option is usually slightly more expensive than Direct Thermal.

Choose Thermal Transfer if:
- label life expectancy is greater than 12 months
- you will be printing high density barcodes
- label could be exposed to continuous sunlight & elevated temperatures
- you need other colors besides black
- label could be exposed to chemicals or abrasives
- you want to print on different label types (i.e. papers, foils and films)