



# CodeFacts

AIDC (Automated Identification and Data Collection) Technical & Informational Documents  
Written for Everyone

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## **Preprinted Bar Code Labels** ***A Comparison of Off-Site Printing Technologies***

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Anyone who thinks that the term “bar code label” means a bar code image, printed on paper, with a semi-permanent pressure-sensitive adhesive is very mistaken. These days, a bar code label can be made of everything from plastic to metal, fabric to film. There is literally a bar code label available for any application or environment. Here is a rundown of what's available through AURORA.

### **Laser**

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For an economical, high-quality image on paper, laser imaged labels are excellent for low- to high-density bar code symbols. Produced at a resolution of 200-600 dots-per-inch, laser labels can come with standard permanent or removable adhesives and with or without a protective, laminate or lacquer coating.

### **Photocomposed Paper**

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Produced in sheets or rolls with a print resolution of over 1200 dots-per-inch, each label is literally a photographic original. Used in applications where medium- to ultra-high densities are required, these labels are made of archival photographic paper with an application-specific adhesive applied on the back. The face of the label is protected with either a laminate or lacquer coating. Photocomposed labels provide the highest first-pass-read-rate of any bar code print technology.

### **Photocomposed Mylar/Polyester**

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Virtually the same as photocomposed paper labels, with the exception of being made completely from very durable plastic. These labels can stand up to great abuse and are resilient to water and many caustic or solvent-type chemicals.

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## **Anodized Aluminum**

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Usually classed as "tags" rather than labels, these are used in extremely-abusive environments. Sometimes supplied with a pressure-sensitive adhesive, they are also attached to articles with a rivet or wire loop. Capable of standing temperatures of over 1000 degrees F they are used in very special applications requiring the ultimate in durability.

## **Fabric**

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Having the bar code bars indelibly printed into a fabric tag allows these labels to be used in tracking laundry, uniform and other textile products through multiple cleanings. The fabric labels can either be sewn into the article or "heat fused". Such labels will typically remain scannable for between 50 and 100 dry cleanings or washings.

## **Perma-Bar**

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The Perma-Bar system is an electroplating/etching system capable of applying a bar code to most any conductive metal surface. This is the closest thing one can currently come to a "permanent" bar code label. Perma-Bar allows things such as tools and surgical instruments to be identified with a bar code, without the physical addition of a label or tag. The image is almost impossible to remove and will stand up to autoclave and high temperature situations where other labelling systems fail.

## **Thermal Transfer**

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Thermal transfer technology provides excellent bar code quality at the expense of lower-resolution text. These labels are available in small or large runs on paper or synthetic materials. Also available are plain or laminated labels manufactured on polyester or destructible vinyl; excellent materials for use in fixed asset control systems.

## Other Specialized Labels

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We also have access to other very specialized labels for applications requiring stainless steel, ceramic or magnetic labels as well as PCB board manufacturing labels, capable of adhering to components through wave soldering processes.

For samples, specifications and prices on any of these labels, please contact AURORA.

