



High Temperature Tag and Label Materials for Hot Metals Processing



XF-610/612 polyimide barcode tags

Industry Needs

The metals processing industry requires readable barcodes be added to sheets, bars, rolls, slabs, springs, coils, etc. at temperatures of 400+°C. The barcodes are used to identify and track materials from the furnace through to delivery to customers. The materials also help manufacturers assure accurate inventories. Finding a durable barcode tag or label that will survive these harsh processes, stay affixed to the material and be readable throughout the 400+°C process temperatures presents a major challenge to manufacturers.

Polyonics Solutions

Polyonics manufactures thermal transfer printable barcode tag and label materials designed specifically for the unique requirements of tracking very hot materials in the metals processing industry. The bar code tags and labels are constructed of durable print surfaces combined with thick polyimide films and aluminum foils. The tag products include 5 mil white and yellow polyimide constructions as well as a 9 mil white aluminum composite. The label products include 2 mil polyimide films and aluminum foils combined with aggressive 1 and 2 mil acrylic and silicone pressure sensitive adhesives (PSA).



XF-610 polyimide barcode tags



XF-803 aluminum barcode label

Assuring Accurate Inventories

The Polyonics family of high temperature tag and label materials provides a wide variety of robust ID and tracking solutions for hot metal manufacturers. The polymer coatings provide durable and abrasion resistant print surfaces for long term retention of critical bar code information. The coatings will also not degrade during long-term exposures to elevated temperatures and weather plus resist fading and/or discoloring. This further enhances long-term readability throughout the complete process assuring manufacturers accurate inventories.



XF-519 polyimide barcode label



XF-610/612 polyimide barcode tags

Applications

- Identification of red hot metal slabs, billets, pipes, tubes, sheets, rolls, coils, springs, etc.
- Track and trace products from furnace to customer delivery.
- Inventory control
- Post furnace, in-process labeling/tagging
- Annealing, pickling, heat treating, chemical coatings, etc.

Features and Benefits

- High temperature resistance
- High tear resistance (tags)
- Weather resistance
- High Chemical Resistance
- Application of Labels up to 300°C
- High Strength Permanent Bond -40°C to 600°C (labels)
- Thermal Transfer Printable
- Halogen Free
- REACH and RoHS Compliant

Product Line

Product Line				Operating Temperature °C	
Labels	Film/foil	PSA	Applications	Continuous	Short Term
XF-519	Matte white 2 mil polyimide	1.5 mil high temperature acrylic	Auto apply, tracking hot aluminum and steel rolls	200–225	300
XF-803	White 2 mil aluminum	1 mil ultra-high temperature silicone	Track and trace hot metal rolls, sheets, tubes, etc.	400–500	600
XF-808	White 2 mil aluminum	2 mil high temperature acrylic	Tracking hot metal rolls, sheets, etc.	200–300	350
Tags					
XF-610	5 mil polyimide gloss white coated one side, matte white second side	N/A	Identifying hot coils metals, bars, ingots, rolls, sheets, etc.	300-400	600
XF-612	5 mil polyimide gloss yellow coated both sides	N/A	Tracking all forms of hot metals	300-400	600
XT-660	9 mil aluminum gloss white coated one side	N/A	Tracking, hot metals, springs, etc. through heat treat, name plates, etc.	350-450	500

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