



Ceramic-on-Stainless Steel Nameplates

HIGH TEMP METAL TAGS

Printed using ceramic ink on a thin ceramic layer that is fired and fused to a heat-resistant stainless steel substrate. Withstands moderate to harsh chemical conditions and extremely high temperatures.

Material and Design Specifications

- Stainless steel substrate with ceramic layer
- Material thickness: Contact Metalcraft for details
- Overall dimensions: Contact Metalcraft for details
- 0.004" (0.089 mm) pressure-sensitive acrylic adhesive is standard, but is intended for use as a placement adhesive only. Metal fasteners are required for temperatures exceeding 480 °F
- Optional holes for mechanical fasteners

Technical Specifications

- All alphanumeric barcodes are imaged with human-readable equivalent to guarantee no skips in sequence.
- Code 39 with 2.7 to 9.4 characters per inch (CPI) is standard.
- Other barcode symbologies include Code 128, I 2 of 5, 2D DataMatrix and QR Code. OCR characters and CPIs also available.

Key Features

- Withstands temperatures up to 1,000 °C (1,832 °F) intermittently
- Resists extreme caustics and acids
- Ideal for applications with repeated exposure to saltwater
- SLGZ offers additional glaze for image protection

Applications

- Asset Tracking
- Tool Tracking
- Work-in-Process
- Product Identification

Environmental Specifications

- Temperature Range: Up to 1,000 °C (1,832 °F)
- UV Resistance: 20+ years
- Chemical Resistance: Withstands moderate to harsh chemical conditions and extremely high temperatures

Test Results

These tests were conducted for a limited period in strict laboratory conditions. To achieve maximum satisfaction, we highly recommend any customer considering use of this product test the tags in the environment in which they will be used.

Chemical Resistance Test					
Properties	SL600	SLS600	SLGZ600	SL800	SL1000
Hydrochloride (10%, 20 °C)	NE after 50 hrs.	NE after 2 hrs.	NE after 50 hrs.	NE after 12 hrs.	NE after 35 hrs.
Hydrochloride (5%, 70 °C)	NE after 3 hrs.	NE after 2 hrs.	NE after 6 hrs.	NE after 1 hr.	NE after 2 hrs.
Nitric Acid (60%, 20 °C)	NE after 20 days	NE after 2 hrs.	NE after 293 days	NE after 7 days	NE after 100 days
Nitric Acid (60%, 70 °C)	NE after 1 hr.	NE after 2 hrs.	NE after 24 hrs.	NE after 2 hrs.	NE after 9 hrs.
Sulfuric Acid (5%, 70 °C)	NE after 5 hrs.	NT	NE after 6 hrs.	NE after 5 hrs.	NE after 6 hrs.
Sulfuric Acid (98%, 70 °C)	NE after 5 hrs.	NT	NE after 40 days	NE after 7 days	NE after 2 days
Phosphoric Acid (85%, 70 °C)	NE after 1 hr.	NT	NE after 7 days	NE after 1 day	NE after 15 hrs.
Sodium Hydroxide (5%, 70 °C)	NE after 16 hrs.	NE after 2 hrs.	NE after 14 days	NE after 25 hrs.	NE after 12 hrs.
Solvent	NE	NE	NE	NE	NE

Key: NE - No Effect, NT - Not Tested

Heat Test				
Properties	SL600	SLS600	SL800	SL1000
Maximum Heat Resistance	580 °C (1,040 °F)	580 °C (1,040 °F)	800 °C (1,470 °F)	1,000 °C (1,830°F)

Weather Resistance Test: No effect on ceramic layer after 30 cycles salt spray test under conditions indicated.			
Conditions	Temperature	Humidity	Time
5% salt water spray	35° +/- 1 °C	Over 95%	2 hrs.
Dry hot air	60° +/- 2 °C	---	4 hrs.
Wetting	50° +/- 2 °C	Over 95%	2 hrs.