ALTEC
INDUSTRIAL IDENTIFICATION

Technical datasheet

P510

Date
04/2019

RESOPRINT

Description

P510 durable polyester nameplate labels are designed for patch panel identification in identifying external push- buttons, switches, and internal connection points. P510 is also used as rating and serial plates using alphanumerics that require name plate quality

Material	Polyester
Finishing	Glossy
Color	White, yellow, green, red, silver and black
Adhesive	Permanent acrylic, foam backed
Print technology	Thermal transfer

Physical data

Physical properties	Test methods	Average results
Thickness	ASTM D 1000 - Substrate - Foam tape - Total (excluding liner)	 0.200 mm (0.0079 inch) 0.450 mm (0.0177 inch) 0.650 mm (0.0256 inch)
Adhesion to:		
- Stainless Steel	20 minutes dwell 24 hour dwell	35 N/100 mm (32 oz/inch) 98 N/100 mm (90 oz/inch)
- Smooth ABS	20 minutes dwell 24 hour dwell	96 N/100 mm (88 oz/inch) 147 N/100 mm (134 oz/inch)
- Powdercoated surface	20 minutes dwell 24 hour dwell	120 N/100 mm (109 oz/inch) 182 N/100 mm (166 oz/inch)
- Polyethylene	20 minutes dwell 24 hour dwell	142 N/100 mm (130 oz/inch) > 200 N/100 mm (> 200 oz/inch)
Drop Shear	PSTC-7 (except use 1/2" x 1" sample)	35 hours
Tack	ASTM D2979 Polyken™ Probe Tack (1 s dwell, 1 cm/s separation)	468 g

Performance properties	Test methods	Typical results White P510 Halogen Free	Typical results Black P510	Typical results P510 Silver Halogen free
High Service Temperature	1000 hours at 100°C (212°F)	No visual effect	No visual effect	No visual effect
Low service Temperature	1000 hours at -40°C (-40°F)	No visual effect	No visual effect	No visual effect
Humidity Resistance	1000 hours at 37°C (100°F), 95% R.H.	No visual effect	No visual effect	No visual effect

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UV Light Resistance	1000 hours in Q-Sun Xe-1 test chamber	No visual effect	No visual effect	No visual effect
Weatherability	1000 hours in QUV (ASTM G- 53)	No visual effect	No visual effect	No visual effect
Abrasion Resistance	Method 5306 US Federal test 191A CS 10 + 500 g/arm	Number of cycles until print is illegible 175 cycles	Number of cycles until print is illegible 75 cycles	Numbers of cycles until print is illegible 175 cycles

Chemical resistance

Samples were printed with a Halogen Free ribbon and dwelled 24 hours prior to test. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.

Chemical reagent	Appearance of the printing before rubbing	Appearance of the printing after rubbing
Isopropyl alcohol	1	1
Methyl ethyl ketone	5	5
Alcohol mix*	1	2
Gasoline	1	5
Diesel	1	1
Skydrol® 500B-4	1	5
Mil 5606 Oil	1	1
5% sodium hydroxide	1	1
10% Sulphuric Acid Solution	1	1
Deionized Water	1	1
10% Salt Water Solution	1	1
n-hexane	1	1
Iso-octane	1	1
Ethanol	1	1
ASTM#3 oil	1	1
Acetone	1	5

*Alcohol Mix is 50% ethanol, 30% methanol and 20% water by volume

Rating Scale:

1 = no visible effect
2 = slight smear or print removal, detectable but minimal smear
3 = moderate smear or print removal (print still legible)
4 = severe smear or print removal (print legible or just barely legible)
5 = complete print and/or topcoat removal
NP = print removed prior to rub

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Storage

Shelf life is two years from the date of receipt for this product as long as this product is stored in its original packaging in an environment below 80° F (27° C) and 60% RH. It remains the responsibility of the user to assess the risk of using this product. We encourage customers to develop testing protocols that will qualify a product's fitness for use in their actual application.

Regulatory approvals

ROHS Environmental Compliance
P510 is RoHS compliant to RoHS directive 2011/65/EU

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