

# B434 / B7552

## PRINT & PROTECT (PNP)

### Description

Designed for applications where the highest demands on durability and/or chemical resistance is required. The PNP-construction B434 / B7552 is designed for high adhesion to textured metals, powder coated surfaces and low surface energy plastics.

**Material** Metalized polyester | B434

**Overlaminating material** Clear polyester | B7552

**Finishing** Glossy

**Overlaminating finish** Glossy

**Adhesive** Permanent acrylic based

**Overlaminating adhesive** Permanent acrylic

### Technical data

## Physical properties

	Test methods	Average results
<b>Thickness</b>	<b>ASTM D 1000</b>	
Metalized polyester	- Substrate	0,051mm (0.002inch)
	- Adhesive	0,051mm (0.002inch)
Overlaminating polyester	- Substrate	0,051mm (0.002inch)
	- Adhesive	0,023mm (0,0009inch)
	- Total	0,176 mm (0.0069inch)
<b>Adhesion to:</b>	<b>ASTM D 1000</b>	
- Stainless steel	20 minute dwell time	94 N/100mm (86oz/inch)
	24 hour dwell time	106 N/100mm (97oz/inch)
- Smooth PVC	20 minute dwell time	71 N/100m (65 oz/inch)
	24 hour dwell time	81 N/100mm (74 oz/inch)
- Textured ABS	20 minute dwell time	15 N/100mm (14oz/inch)
	24 hour dwell time	20 N/100mm (18oz/inch)
- Polypropylene	20 minute dwell time	73 N/100mm (67oz/inch)
	24 hour dwell time	84 N/100mm (77oz/inch)
<b>Tack</b>	<b>ASTM D 2979</b>	
	Polyken™ Probe Tack	1333 g (47 oz)
	0,5 second dwell time	

## Performance properties

Printed samples of B434 overlaminated with B7552 were laminated to aluminum before exposure to the indicated environmental condition.

	Test methods	Average results
Long term high service temperature	30 days at 90°C (194°F)	No visible effect
Long Term Low Service Temperature	30 days at -40°C (-40°F)	No visible effect
Humidity resistance	30 days at 37°C (100°F), 95% R.H.	No visible effect
UV resistance	30 days in Q-Sun Xe-1, 0,35W/m²@340nm, black temperature 63°C	Yellowing of the label construction Print still legible
Weathering resistance	ASTM G53 (30 days QUV)	Yellowing of the label construction Print still legible

### Chemical resistance

Tests were conducted after 24 hours dwell time. Testing was conducted at room temperature and consisted of 30 minutes immersion in the specified test fluid. After immersion, the samples were removed from the test fluid and visual inspected.

Chemical reagent	Observation of visual change after removal from test fluid
Methyl Ethyl ketone	Very slight adhesive ooze
Toluene	No visible effect
Isopropyl Alcohol	Over-laminate easily coming loose, effect disappearing after the alcohol is vaporized
MIL 5606-oil	No visible effect
Skydrol 500B-4	No visible effect
JP-4 Jet Fuel	No visible effect
ASTM#3 Oil	No visible effect
N-Hexane	No visible effect, edge of overlamine is coming loose
Acetone	Edges of overlamine are coming loose
DOT-4 break Fluid	No visible effect
Gasoline	Adhesive ooze of the over laminating label
Diesel	No visible effect
Alcohol Mixture*	No visible effect
De-ionized Water	No visible effect
NaCl (10%)	No visible effect
H <sub>2</sub> SO <sub>4</sub> (37%)	No visible effect

\* Alcohol Mixture: 50% Methyl alcohol, 30% Ethyl alcohol, 20% Water

#### Trademarks

ASTM: American Society for Testing and Materials (U.S.A)

SAE: Society of Automotive Engineers (U.S.A)

Polyken™ is a trademark of Testing Machines Inc.

Skydrol® is a registered trademark of the Monsanto Company

S.I.: International System of Units

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