

## Technical Data Sheet

### Durable White Polyester (polyolefin) – 708

Durable white synthetic label with acrylic resin adhesive, the label is thermal transfer printable, when printed with Nortec's 181 thermal transfer ribbon the outcome is high chemical print durability better than any other thermal transfer printing we have tested.

- General Description:**
1. Printed image resists all organic solvents, acids, alkalis.
  2. White synthetic film for high scan ability.
  3. Advanced construction requires minimum print head temperatures.
  4. Good abrasion resistance.
  5. Good heat and excellent moisture resistance.

**Uses & Features:** Designed for high-performance label applications. Topcoat resists smudging and abrasion when printed with the recommended ribbon.

Uses:

1. **Battery parts,**
2. **Asset marking,**
3. Process control of electronic components and telecommunication components,
4. Production control of **automobile** parts,
5. Nameplates on **electronic** and **telecommunication** equipment.
6. **Rating labels** and applications requiring **harsh environment**, solvent and **chemical resistance.**

**Key Features:**

On-site printing by thermal transfer printer.  
High resolution printing  
Excellent chemical durability - alcohol, toluene, acetone, and etc  
Excellent friction durability.  
Good performance of anti static electricity

**Recommended Ribbon:**

Nortec's Type 181 (i.e. EE01QL181OPJ) TT Ribbon.

**Approx. Thickness:**

	Thickness +/- 10%
Substrate:	4.0 MIL
Adhesive	1.0 MIL
Liner	2.5 MIL
Total:	7.5 MIL

**Adhesion:**

Surface	Adhesion N/20mm
<b>Stainless steel</b>	<b>16.6</b>
<b>Aluminum</b>	<b>15.1</b>
<b>polycarbonate</b>	<b>16.7</b>
<b>PCB</b>	<b>17.1</b>
<b>Glass</b>	<b>16.9</b>
<b>PE</b>	<b>11.1</b>
<b>PP</b>	<b>15.6</b>

(Test method)

1. Adhesive strength: A 20-mm wide label and its substrate were crimped using a 2-kg roller to make a test piece. Then, the test piece was pulled apart at room temperature at a speed of 300 mm/sec using a tensile tester.

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**Heat resistance:**

	100°C	120°C	140°C	160°C	180°C	200°C
10min						
1H						
2H						
10H						
1D						
3D						
7D						
14D						
28D						

(Test method)

Appearance change after exposing to the environment of each temperature.

**EDS properties:**

Peeling electrification voltage  $\leq$  1KV

**Chemical resistance:**

	Solvent or chemical	test result
Organic solvent	Tri chloro ethane	○
	Tetra chloro ethylene	○
	Ethyl alcohol	○
	Iso-propyl alcohol	○
	Methyl ethyl ketone	○
	Toluene	○
	Ethylene glycol	○
	Prophylene glycol	○
	ethylene glycol mono propyl ether	○
	ethylene glycol mono butyl ether	○
	ethylene glycol mono butyl ether acetate	○
	ethylene glycol mono ethyl ether acetate	○
Chemical	10% NaOH	○
	10% HCl	○
	10% ammonia	○
	Simulated sweat (acid)	○

(Test method)

A label is rubbed 20 times with a load of 200 grams applied to a cotton rag soaked in each chemical.

Changes in appearance are evaluated visually.

○: No change in appearance

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**Temperature:** Service Temp. Range: -40°F to 302°F (-40°C to 150°C)  
Min. Application Temp: 50°F (10°C).

**Shelf Life:** 2 years when stored at 70°F (21°C)/50% RH.

**Warranty:** Nortec AMI recommends that a selected label type be thoroughly tested to insure it meets all end user requirements. Nortec AMI warrants only the purchaser that its products are free from defects in material and workmanship. Nortec AMI limits its obligation under this warranty and at its option to repair or replace the product. This warranty is in lieu of any other warranty, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. Nortec AMI is not liable for any damages, including lost profits, lost savings, or other incidental or consequential damages arising out of the use of or inability to use such product.

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