

## **PET Flat Laminate (1D) Ultra-Gloss Technical Data**

### **Product Description:**

Polyethylene Terephthalate (PET) flat, 1D laminates is a solid or wood-grained decorative PET foil. Film are made with the highest quality materials, intended use is for flat lamination.

#### Chemical Composition:

- 90% - 93% Copolyester
- 2% - 3% Acrylate
- 2% - 3% Pigments
- 1% Complex stabilizer and additives

### **Product Dimensions:**

Overall Width: 1270mm  
 Usable Width: 1270mm  
 Thickness: 0.5mm (20 mil)  
 Roll Length: 200 meters

Test	Effect	Data	Reference
<b>Abrasion resistance (mg)</b>	NE	10↓	Cf1. HCJ-D-204-3
<b>Heat &amp; Cold Repetition Test</b>	NE	OK	Cf2. HCJ-D-204-4
<b>Heat Resistance</b>	NE	OK	Cf7. HCJ-D-204-9
<b>Whitening by Folding</b>	NE	OK	Cf8. HCD-D-204-9
<b>Water Resistance</b>	NE	OK	Cf9. HCJ-D-204-10
<b>Heat &amp; Humidity Resistance</b>	NE	OK	Cf10. HCJ-D-204-13

		Unit	Spec	Data	Reference
<b>Tensile Strength</b>	(MD)	Kgf/mm <sup>2</sup>	3.0 ↑	6.15	JIS-K-6734
	(CD)		3.0 ↑	6.06	
<b>Tear Strength</b>	(MD)	Kgf/mm <sup>2</sup>	5.0 ↑	5.88	JIS-K-6732
	(CD)		5.0 ↑	6.69	
<b>Elongation</b>	(MD)	%	1.0 ↑	5.88	JIS-K-6734
	(CD)		1.0 ↑	6.69	

### **Stain & Chemical Resistance:**

Reagent	Effect	Reference
<b>1 % NaCO<sub>3</sub></b>	NE	Cf3. HCJ-D-204-5
<b>5%CH<sub>3</sub>COOH</b>	NE	Cf3. HCJ-D-204-5
<b>1%HCl</b>	NE	Cf3. HCJ-D-204-5
<b>Petroleum Benzene</b>	NE	Cf3. HCJ-D-204-5
<b>Coffee</b>	NE	Cf4. HCJ-D-204-6
<b>Soy Sauce</b>	NE	Cf4. HCJ-D-204-6
<b>Worcestershire Sauce</b>	NE	Cf4. HCJ-D-204-6
<b>Black Marker</b>	NE	Cf5. HCJ-D-204-6
<b>Red Cryaon</b>	NE	Cf5. HCJ-D-204-6
<b>Petroleum Benzene</b>	NE	Cf6. HCJ-D-204-7
<b>Laquer</b>	NE	Cf6. HCJ-D-204-7
<b>95% Ethanol</b>	NE	Cf6. HCJ-D-204-7

#### **Effect:**

NE= No Effect  
 SL= Slight Effect  
 ME= Moderate Effect  
 SE= Severe Effect

cf1. Abrasion resistance: The sample is observed after 100 cycling with the load of 1000g.

cf2. Heat & Cold repetition test: The sample of 150mm X150mm is placed in an oven at 60°C for 2hrs, and then put into the cold bath of -20°C. After 2 cycling, observe the defects of sample.

cf3. Chemical resistance: Each solvent of 1% NaCO<sub>3</sub>, 5% CH<sub>3</sub>OOH, 1% HCl, petroleum benzene is dropped on the sample, After 6 hrs. The sample is washed with water and dried.

cf4. Stain resistance (1): Each solvent of coffee and soy sauce is dropped on the sample. After 6 hrs, the sample is washed with water and dried.

cf5. Stain resistance (2): Based on JAS B for the contamination. Draw a line of 10mm wide on the sample. After 4 hrs, wiped it with a solvent or detergent.

cf6. Solvent resistance: The sample is rubbed 10times with cotton wool soaked in petroleum benzene, lacquer, 95% ethanol each. Not Greatly Changed.

cf7. Heat resistance: The sample is placed in an oven 60°C for 24hrs. After cooling to normal temperature, observe the surface of sample. Not Greatly Changed.

cf8. Whitening by folding: the sample is placed in a thermostat at 25°C for 30mins, and then fold at an angle of 180 degrees and observe the whitening.

cf9. Water resistance: The sample is dipped in water at normal temperature for 48hrs and dried.