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# PET Flat Laminate (1D) 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% Copoylester
- 2% - 3% Acrylate
- 2% - 3% Pigments
- 1% Complex stabilizer and additives

## Product Dimensions:

| | |
|---|---|
| Overall Width: | 1270mm |
| Usable Width: | 1270mm |
| Thickness: | 0.4mm to 0.5mm |
| Roll Length: | 200 meters |

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

| | | Unit | Spec | Data | Reference |
|---|---|---|---|---|---|
| **Tensile Strength** | (MD) | Kgf/mm² | 3.0 ↑ | 6.15 | JIS-K-6734 |
| | (CD) | | 3.0 ↑ | 6.06 | |
| **Tear Strength** | (MD) | Kgf/mm² | 5.0 ↑ | 5.88 | JIS-K-6732 |
| | (CD) | | 5.0 ↑ | 6.69 | |
| **Elongation** | (MD) | % | 1.0 ↑ | 5.88 | JIS-K-6734 |
| | (CD) | | 1.0 ↑ | 6.69 | |

## Stain & Chemical Resistance:

| Reagent | Effect | Reference |
|---|---|---|
| **1 % NaCO3** | NE | Cf3. HCJ-D-204-5 |
| **5%CH3COOH** | NE | Cf3. HCJ-D-204-5 |
| **1%HCl** | NE | Cf3. HCJ-D-204-5 |
| **Petroleum Benzene** | NE | Cf3. HCJ-D-204-5 |
| **Coffee** | NE | Cf4. HCJ-D-204-6 |
| **Soy Sauce** | NE | Cf4. HCJ-D-204-6 |
| **Worcestershire Sauce** | NE | Cf4. HCJ-D-204-6 |
| **Black Marker** | NE | Cf5. HCJ-D-204-6 |
| **Red Cryaon** | NE | Cf5. HCJ-D-204-6 |
| **Petroleum Benzene** | NE | Cf6. HCJ-D-204-7 |
| **Laquer** | NE | Cf6. HCJ-D-204-7 |
| **95% Ethanol** | 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℃ for 2hrs, and then put into the cold bath of -20℃. After 2 cycling, observe the defects of sample.

cf3. Chemical resistance: Each solvent of 1% NaCO3, 5% CH3OOH, 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℃ 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℃ 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.