

Thermal Transfer Printable Polyester Film

PRODUCT SPECIFICATIONS:

Description:

Print Technology	Thermal Transfer
Adhesive	Acrylic
Standard Colors	White, Yellow, Blue, Red, Green, Transparent
Finish	Glossy
Service Temperature Range (printing)	From 5 to 35 degrees C
Recommended Application Temperature	15 degrees C or more
Storage Condition Range	From -10 to 40 degrees C

Thickness (mm)

	White	Yellow	Blue	Red	Green	Transparent
Substrate	0.038	0.038	0.038	0.038	0.038	0.038
Adhesive	0.018	0.018	0.018	0.018	0.018	0.018
Colored layer	0.014	0.014	0.009	0.010	0.011	–
Liner	0.073	0.073	0.073	0.073	0.073	0.073
Total	0.143	0.145	0.138	0.139	0.140	0.129

APPLICATIONS

General identification for indoor/outdoor usage, barcode label, caution or warning label.

REGULATORY/AGENCY APPROVALS

UL: Epson Polyester Film label (only Transparent) got an approval of UL969 when printed with a print ribbon which is contained in a tape cartridge. You can see the details on UL file MH49716, it is available on UL.com

RoHS: Epson Polyester Film label is RoHS compliant to Directive (2011/65/ EU) and (Annex II (EU) 2015/863) established on June 8, 2011.

PROPERTIES

Properties		Test method	Average result
Stainless Steel	Adhesion time	Compliance to JIS Z 0237(2000), peeling angle 180 degrees / peeling speed 300mm/min	
	20 min.		9.4N/25mm
96 hours	14.1N/25mm		
Polypropylene	20 min.		2.8N/25mm
	96 hours	2.8N/25mm	

Glass	20 min.		9.2N/25mm
	96 hours		18.7N/25mm
Vinyl chloride	20 min.		15.4N/25mm
	96 hours		20.0N/25mm
Acrylic	20 min.		11.7N/25mm
	96 hours		13.0N/25mm
Shear / Displacement	Putting on glass plate (adhesion area is 12 x 20 mm), then load 1kg to the label for 1 hour		0.3mm
Tack	Probe tack test with dia. 5mm probe		8.58N
UV Light resistance	Putting on stainless plate, then irradiance 40W/m ² , B.P.T 63 degrees C and 50% RH, for 390 hours in Super Xenon Weather Meter (Suga SX75)		No visible effect
Weatherability	<p>Repeat below 1 to 4 for 55 hours / 110 hours.</p> <ol style="list-style-type: none"> Irradiation for 10 hours 1.24kW/m² irradiance, B.P.T 63 degrees C and 50% RH Spray for 1 minute Dark and condensation for 1 hour Spray for 1 minute <p>55 hours / 110 hours acceleration test equals to 1 year / 2 years of environment of Japan in metaling weather meter machine (SUGA M6T).</p>		No visible effect
Short Term High service temperature	Putting on aluminum plate for 2 hours		
	200/225/250 degrees C		Printed text is legible but some discoloration on tape.
	150 degrees C		No visible effect
High Service Temperature	Putting on aluminum plate at 50/100 degrees C for 240 hours.		No visible effect
Low Service Temperature	Putting on aluminum plate		
	-70/-30 degrees C for 72 hours		No visible effect
	0 degrees C for 240 hours		
Short Term Low Service Temperature	Putting on stainless plate at -196 degrees C for 2 hours.		No visible effect

Abrasion Resistance	50 cycles on 500gf pressure by Japanese 10 Yen copper coin	Slight removable of text, but still legible.
	50 cycles on 2kgf pressure by plastic eraser.	No visible effect

CHEMICAL/ SOLVENT RESISTANCE

Chemical reagents	Test method	Results
Toluene	Putting on aluminum plate, then sink for 24 hours (in case of Yellow, Red and Blue)	Slight fading on tape color but no print removal and no tape removal
Isopropyl Alcohol	Putting on glass plate, then sink for 1 hour (in case of Yellow and Green)	No visible effect, no print removal and no tape removal

Chemical reagents	Test method	Results
Toluene	Attach to glass plate, then sink in each chemical / solvent for 2 hours	No visible effort
Hexane		No visible effort
Ethanol		No visible effort
Acetone		No visible effort
Mineral sprit		No visible effort
0.1N Hydrochloric acid		No visible effort
0.1 N Sodium hydroxide		No visible effort
Ethyl acetate		Removing printed texts
Engine oil		No visible effort

Chemical reagents	Test method	Results
Toluene	Attach to glass plate, then rub with 500 gf pressure up to 50 times by cotton swab with chemical / solvent.	Removing printed texts
Hexane		No visible effort
Ethanol		No visible effort
Acetone		Removing printed texts
Mineral sprit		No visible effort
0.1N Hydrochloric acid		No visible effort
0.1 N Sodium hydroxide		No visible effort
Ethyl acetate		Removing printed texts
Engine oil		No visible effort

Note:

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Product availability may vary by country. Please refer to your local Epson office for full details.

Note that the information about the characteristics, such as numeric values, described in this document are the evaluation results for information only, not for guarantees.