

設計驗證
工程課
2026 -03- 09
發行
[illegible]科技開發股份有限公司

WAI GHA INDUSTRIAL CO., LTD.
APPROVAL SHEET

Customer	鈺緯科技	FILE NO.	WG260309001
Material	3M-7818	DATE	2026.03.09
Part No.	**3MD042LB01C**(M2046)	UL	WG-7818-MS

CONSTRUCTION:

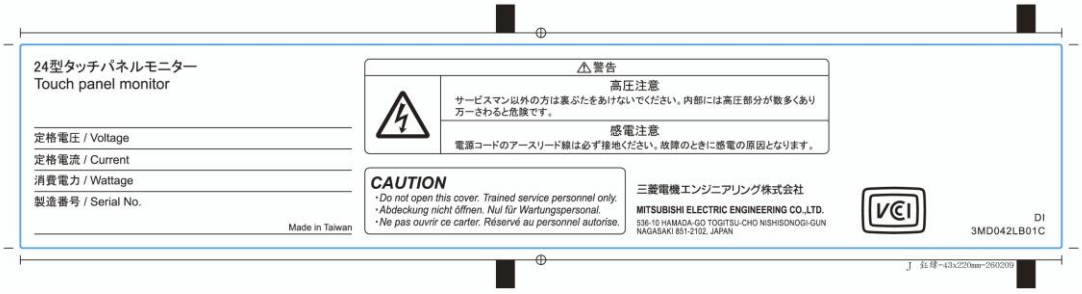
- Face-stock: 3.3 mil (82.5micron) matte silver polyester.
- Adhesive: 0.8 mil (20micron) #310 “Hi-Precision” acrylic. 180 degrees peel, 12”/min. 1” wide sample
  Stainless steel: 48 oz/inch (for 10-min. dwell).
  ABS: 48 oz/inch (for 10-min. dwell).
  Polypropylene: 8 oz/inch (for 10-min. dwell).
- Release Liner: 3.2 Mil (80 micron) 55# densified kraft. 180 degrees liner removal from face-stock, 90”/min. 1” wide sample.
  Typical value: 14 oz/inch (for 10-min. dwell)
- Temperature Resistance: Operating range is -40 degrees C to 150 degrees C; Application range is 50 degrees to 100 degrees C.
- Water Resistance: No change after three days at room temperature.
- Humidity Resistance: No change after three days at 32 degrees C and 90% relative humidity.
- Auto Oil Immersion: No change noted after four hours at room temperature.
- Acid/base Immersion: No change after four hours at room temperature in solutions of pH of 4 and pH of 10.
- Isopropyl Alcohol Immersion: No change after four hours at room temperature.
- Shelf Life: One year if properly stored at 22 degrees C and 50% relative humidity.

NOTE:

- Die-cutting single label size is 43mm(W) *220 mm(L)
- The quantity of one roll is 1000 pcs.

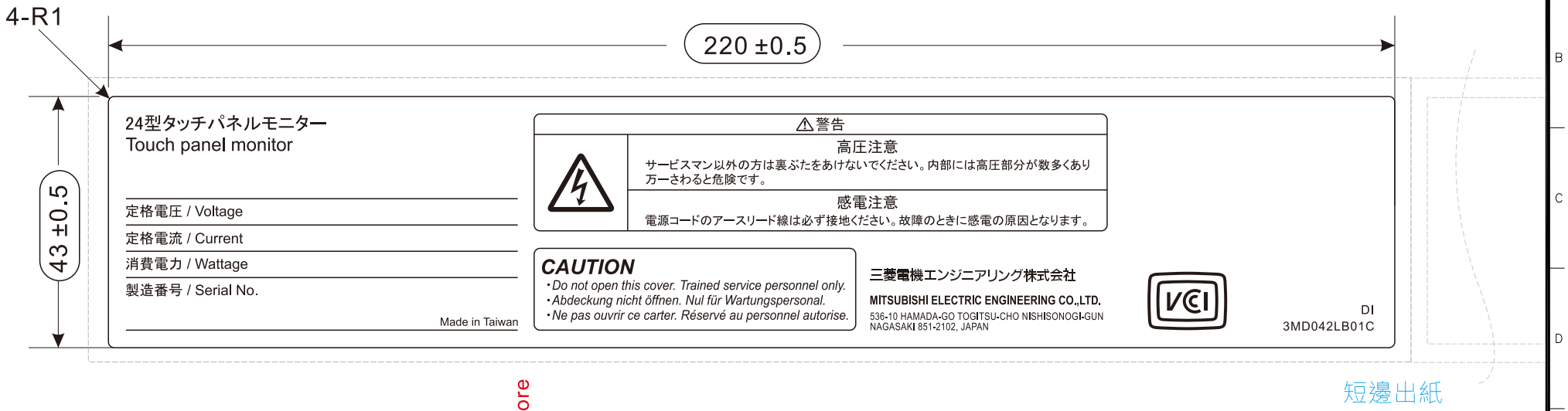
P/N: **3MD042LB01C**

SAMPLE:



DIVA APPROVED BY	DIVA CHECKED BY	WAI GHA CONFIRM BY	WAI GHA LISTING BY
設計驗證 工程課 2026 -03- 09 發行 鈺緯科技開發股份有限公司		張哲溫	蔣仲原 台北縣汐止市大同路三段194號1F 威嘉實業有限公司 TEL:8647-3525(代表號)

REV.	DATE	DESCRIPTION	BY	APVD
A	20191113	Remove	ALICIA	
B	20201027	1.Remove CE logo 2.Update FCC logo 3.Add FCC warning	ALBERT	
C	20250708	1.Remove FCC UL logo	killy	
	20260121	Remove This device complies with part 15 of the FCC Rules.	killy	





Note:
1.Material: Polyester film silver matt sticker (50#) , HTLSMI50
Coated: Overlay with liner label
2.Color: background: silver matt.
Character: Black
3.Adhesive: Translucent film with adhesive
4.Material need to meet UL requirements.
5.Meet UL second printing standard.
Only use PGJI2 printed label
Anti Scratch Protective tape. Ricoh #B110CR ribbon.
6.Thickness=0.1mm±0.05mm
7.Customer provide Serial No.
8.IQC Inspection Document NO. : QWI-016
9.短邊出紙，一捲500張，需有自動裁切線

設計驗證 工程課 2026-03-09 發行

Barcode printing
Information NO.:8MD042LB01T

PM/SALES		ENG. DEPT		SAFETY	
Amber 0130 1915	Olin 0202 1145	John 0202 1340	Joanne 0203 0910	Lydia Liao 0202 1150	

THIRD ANGLE PROJECTION	UNITS:mm	SCALE:1/1	SHEET: 1/1	MODEL NO.: TSD-PT241W-C	
	MATERIAL : SEE NOTES		TREATMENT :		
DSGD by Killy	2026/01/30	PART NAME : MODEL LABEL			
APVD by Lydia	2026/03/05	PART NO.: 3MD042LB01C		VER. C	
APVD No.: (M2046)	FILE NAME: 3MD042LB01C.cdr	DIA Laboratories,Ltd.			

Thermal Transfer Polyester Label Material

7818

Technical Data **April 15, 1999**

Supersedes July 31,1996

Construction

(Calipers are nominal values.)

Facestock	Adhesive	Liner
3.3 mil (84 micron)	0.8 mil (20 micron)	3.2 mil (81 micron)
Matte silver polyester	#310 Acrylic	55# Densified kraft

Features

- Matte topcoat provides the advantages of matte coating combined with a surface that is smooth enough for thermal transfer printing. Resin ribbons are recommended for optimum durability. The matte coating resists degradation from scuffing, chemicals, moisture, and wide temperature fluctuations. The topcoat also provides improved ink anchorage for traditional forms of press printing.
- #310 adhesive is a firm adhesive which resists oozing and provides high strength on a variety of surfaces including high surface energy (HSE) plastics and metals.
- 55# densified kraft liner assures consistent die cutting.
- 3M™ Label Material 7818 is UL recognized (File MH16411) and CSA accepted (File 99316). See the UL and CSA listings for details.

Application Ideas

- Barcode labels and rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates for durable goods.
- Substitutes for stamped metal, riveted plates.

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesion: 180° peel test procedure is ASTM D 3330.
90° peel test procedure is ASTM D 3330 modified for the angle change.

	Initial (10 Minute Dwell/RT)				Conditioned for 3 Days at Room Temperature 72°F (22°C)			
	180° Peel		90° Peel		180° Peel		90° Peel	
Surface	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm
Stainless Steel	43	47	35	38	51	56	41	45
Polycarbonate	47	51	37	40	52	57	43	47
Polypropylene	18	20	16	18	18	20	24	26
Glass	52	57	34	37	68	74	47	51
HD Polyethylene	24	26	16	18	33	36	20	22
LD Polyethylene	20	22	12	13	32	35	22	24

	Conditioned for 3 Days at 120°F (49°C)				Conditioned for 24 hours at 90°F (32°C) at 90% Relative Humidity			
	180° Peel		90° Peel		180° Peel		90° Peel	
Surface	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm
Stainless Steel	60	66	46	50	74	81	46	50
Polycarbonate	41	45	32	35	62	68	40	44
Polypropylene	35	38	30	33	38	42	27	30
Glass	68	74	42	46	66	72	32	35
HD Polyethylene	30	33	20	22	35	38	27	30
LD Polyethylene	5	4	8	9	20	22	24	26

Liner Release: 180° Removal of Liner from Facestock

Rate of Removal	Grams/Inch Width	N/100 mm
90 inches/minute	11	0.42
300 inches/minute	11	0.42

Environmental Performance

The properties defined are based on four hour immersions at room temperature (72°F/22°C) unless otherwise noted. Samples were applied to stainless steel panels 24 hours prior to immersion and were evaluated one hour after removal from the solution for peel adhesion. Adhesion measured at 180° peel angle (ASTM D 3330) at 12 inches/minute.

Chemical Resistance:

	Adhesion to Stainless Steel		Appearance	Edge Penetration
Chemical	Oz./in.	N/100 mm	Visual	Millimeters
Isopropyl Alcohol	54	59	No change	1
Detergent (1% Alconox®*)	66	72	No change	0
Engine Oil (10W30) @ 250°F (121°C)	70	77	No change	1.5
Water for 48 hours	72	79	No change	0
pH 4	70	77	No change	0
pH 10	66	72	No change	0
409®* Cleaning solution	65	71	No change	0
Toluene	29	32	Top coat damaged	6.3
Acetone	38	42	Top coat damaged or gone	4.5
Brake Fluid	77	84	No change	0
Gasoline	32	35	No change	5.5
Diesel Fuel	55	60	No change	1
Mineral Spirits	48	52	No change	2.3
Hydraulic Fluid	58	63	No change	0

Temperature Resistance:

300°F (149°C) for 24 hours:	no significant visual change
-40°F (-40°C) for 3 days:	no significant visual change

Humidity Resistance:

24 hours at 100°F (38°C) and 100% relative humidity:	no significant change in appearance or adhesion

Accelerated Aging:

ASTM D 3611: 96 hours at 150°F (65°C) and 80% relative humidity

	Rate of Removal	Grams/In. Width	N/100 mm
180° Removal of Liner from Facestock	90 inches/minute	10	0.39
	Rate of Removal	**Oz./In. Width**	**N/100 mm**
180° Peel Adhesion from Stainless Steel	12 inches/minute	49	54

Shelf Life

Two years from date of manufacture of product when properly stored at 72°F (22°C) and 50% relative humidity.

Agency Listing Information

Thermal Transfer Printing

Printer: UL no longer requires evaluation and listing of specific printers.

*Ink Ribbon/UL Recognized Components

Advent: 301 Black; 303 Black; 501 Black; 501 Red; 501 Blue; 501 Green

Armor: AXR-7; AXR-7+; AXR-600

Astromed™: R5

CP™ 5440 Red; 5640 Blue; 5940 Black

Dasco: DR-74; DR-84

Great Ribbon: SDR; GPR

ICS: ICS-CC-2000; ICS-CC-4099.1

Iimak™: SH-36; SP-330; PrimeMark

Intermec: 051864-3; 053258-2; 054048-4; 054195-2

Japan Pulp and Paper: JP Resin 1; JP Resin 2 Blue; JP Resin 2 Red; JP Resin 2 Green

Kurz™: K501

Mid City Columbia™: CGL-80; CGL-80HE

Markem™: 716

NCR™: Matrix Resin; Matrix (suitable for indoor use only); PaceSetter; Promark II; Ultra V

Pelikan™: T016

Ricoh™: B110A; B110C; B110CS

Sato™: Premier 1

Sony™: 4050; 4051; 4070; 4072; 4075; 4085; 5070; Signature™ Series Resin; Signature™ Series Wax

UBI™: HR03; HR04

Zebra™: 5095; 5097; 5099; 5100; 5175; 5555

Laser Toner Printing:

UL recognized with the following printers and toners.

* Toner and Printer/UL Recognized Components

Hitachi HMT 446 toner kit for producing finished printed labels with UL listed Synergystex CF-1000 laser printer

3M™ Thermal Transfer Polyester Label Material 7818

Processing

Printing:
Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. It is printable by all standard roll processing methods including flexography, hot stamp, letterpress, and screen printing. Refer to the Graphic Ink Selection Guide or call 3M Customer Service at 1-800-223-7427 for additional information.

Die Cutting:
Rotary die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.

Packaging:
Finished labels should be stored in plastic bags.

Special Considerations

For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and isopropyl alcohol.**

**NOTE: When using solvents, read and follow the manufacturer's precautions and directions for use.

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 50°F (10°C), can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds can be achieved through increased rubdown pressure.

Technical Information and Data

The technical information and data, recommendations, and other statements provided are based on tests or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Warranty and Limited Remedy

The 3M product will be free from defects in material and manufacture for a period of one (1) year from the date of manufacture. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If the 3M product is defective within the warranty period stated above, your exclusive remedy and 3M's sole obligation shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product.

Limitation of Liability

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3M

Industrial Tape and Specialties Division

3M Center, Building 220-7W-03
St. Paul, MN 55144-1000
USA
1 800 362 3550
1 800 223 7427 Fax On Demand
www.3M.com

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