



產品承認書

Specification for Approval

客戶 (Customer): 正文科技股份有限公司

Customer Part No.: 180-100-1389R

Product Description: WSMK-161ACN

Lynwave Part No.: AEX21F-085AA0

客戶簽核 (Customer Approval)

客戶承認 Customer Approval	核准 (Authorized)	檢驗 (Approved)
	日期： 年 月 日	

內部簽核 (Signature)

日期： 2021 年 06 月 13 日

Approved by	Checked by	Tested by
<i>YungMing</i>	<i>Lisa Wei</i>	<i>Zero Chen</i>

綠億科技股份有限公司

Lynwave Technology Ltd.

Taiwan: 新北市樹林區學成路 655 號 5 樓

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Contents

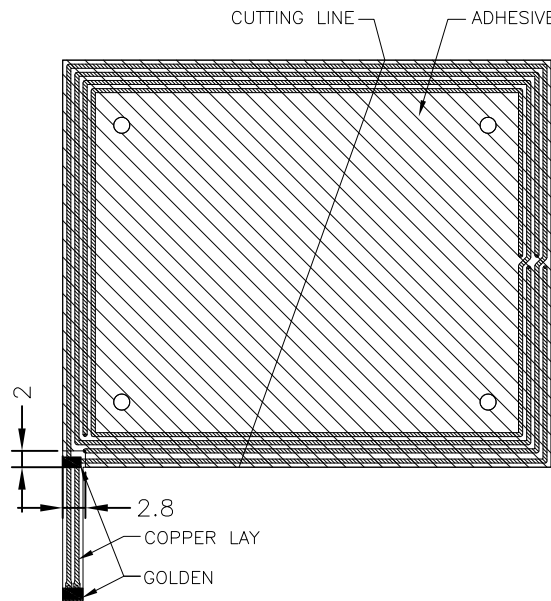
Item	Description	Page
1.	Cover	1
2.	Contents	2
3.	Specification	3
4.	Drawing	4
5.	Others	5~21

Specification

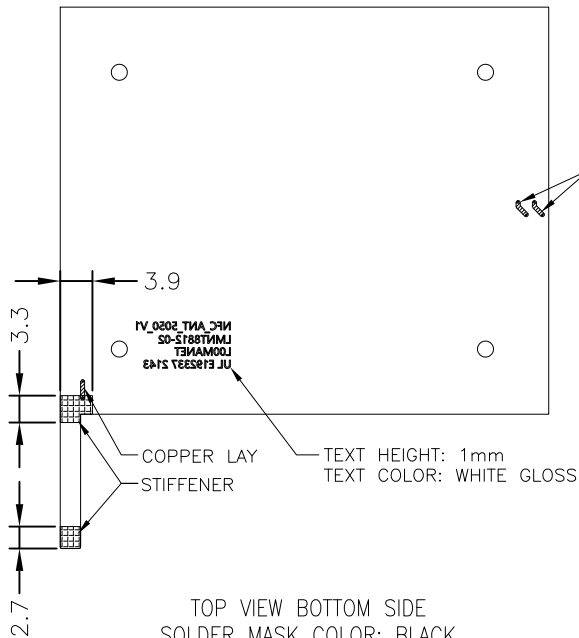
Physical Properties :

1. Operation temperature : $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
2. Storage temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
3. Storage period: 2years
4. Weight: 1.06g

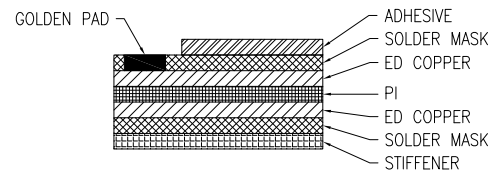
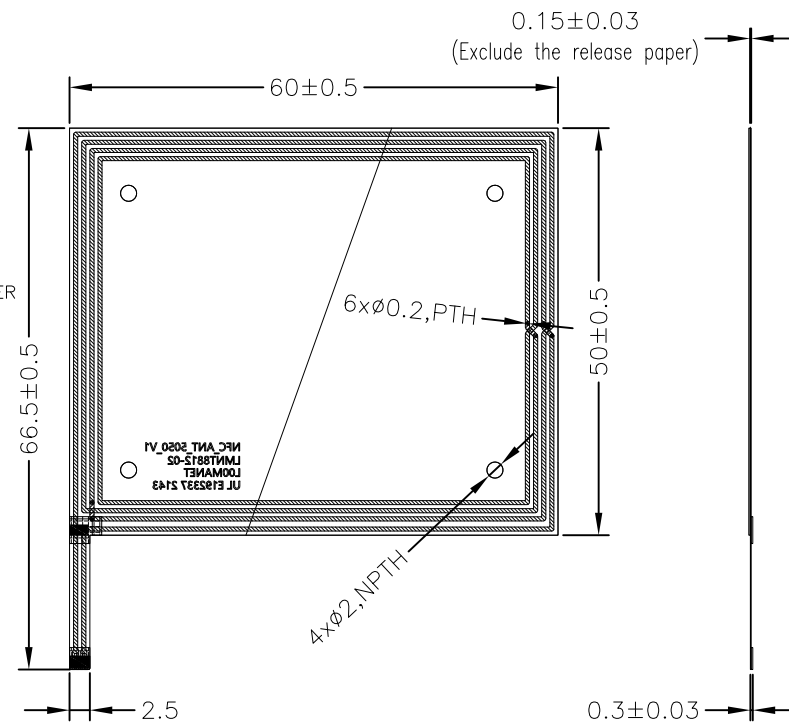
Rev	Zone	Description	ENG	Approved	Date
A1		修改尺寸			2021/12/03



TOP VIEW TOP SIDE
ADHESIVE LAY: 3M 467
SOLDER MASK COLOR: BLACK



TOP VIEW BOTTOM SIDE
SOLDER MASK COLOR: BLACK



DENSITY:		COAXIAL CABLE (COLOR):	
OTHER MATERIAL: PACKAGING		RF CONNECTOR	
MATERIAL (METAL/PLASTIC):		BASE MATERIAL:	1oz ED Cu./FPC-LPI 1mil加板/1oz ED Cu.
OPERATION TEMPERATURE:		ELECTROPLATE:	鍍鍍層80-280u"+鍍金3-8u"
TOTAL THICKNESS:	FPC, T=0.1 FPC+STIFFENER, T=0.3+0.03	COVER (LAY):	SOLDER MASK COLOR: BLACK
CONSTRUCTURE (Foil):		ADHESIVE:	3M 467, T=0.05

MATERIAL LIST

No.	Description	Specification	Qty	Notes
1				

TOLERANCE	CUSTOMER	PART NO.	DESCRIPTION:	DWG NO.	REV.
XXX. ±1.0	----	----	Antenna	AEX21F-085AA0	A1
XX. ±0.5	PROJECTION	UNIT	SCALE	SIZE	SHEET
X. ±0.3	⊕	mm	1:1	A4	1/1
.X ±0.1	APPROVED: James	DESIGNED: Yungming	DRAWN: Anna	LYNwave www.lynwave.com	
.XX ±0.05					

UL Product iQ™



QMTS2.E192337 - Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

See General Information for Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

JIUJIANG FLEX CO LTD

1210 Qianjin Rd E

Jiujiang, Jiangxi 332006 CHINA

Base films (declad materials):

E192337

Mtl	Dsg	Color	Film	Adhesive		Flame Class	R.T.I.		H				Meets 746E DSR	
			Min Thk (mm)	Max Thk (mm)	Min Thk (mic)		Max Thk (mic)	Elec (°C)	Mech (°C)	H W I	H A I	V T R		C T I
Polyester Base films with A508 adhesive on one side only, furnished as sheets.														
LPET%/D-FR (##)														
		NC	0.050	0.050	30.5	30.5	V-0	105	105	5	3	0	4	-
			0.075	0.075	30.5	30.5	V-0	105	105	-	-	-	-	-
			0.100	0.100	30.5	30.5	V-0	105	105	-	-	-	-	-
			0.125	0.125	30.5	30.5	V-0	105	105	-	-	-	-	-
LPET%/S-FR (##)														
		NC	0.050	0.050	30.5	30.5	VTM-1	105	105	5	3	0	4	-
			0.075	0.075	30.5	30.5	VTM-1	105	105	-	-	-	-	-
			0.100	0.100	30.5	30.5	VTM-1	105	105	-	-	-	-	-
			0.125	0.125	30.5	30.5	VTM-1	105	105	5	-	-	-	-
Polyethylene Terephthalate (PET) Base films with Epoxy adhesive on one or both sides, furnished as sheets.														
LPET1\$/@-FR														
		NC	0.0234	0.0234	20	50	VTM-0	-	-	-	-	-	-	-

Polyethylene Terephthalate (PET) Base films with Epoxy and Polyester adhesive on one or both sides, furnished as sheets or rolls.
LPET#\$/@-HFR

	NC	0.025	0.025	18	18	VTM-0	105	105	5	4	-	-	-
		0.025	0.025	35	35	VTM-0	105	105	4	4	-	-	Yes
		0.050	0.050	18	18	VTM-0	105	105	4	3	-	-	Yes
		0.050	0.050	35	35	VTM-0	105	105	4	2	-	2	Yes

Polyimide (PI) Base films with A398 adhesive on one side only, furnished as sheets.
CPI(#A&-FR (##)

	NC	0.025	-	25.4	38.1	V-0	240	200	5	4	0	4	-
		0.050	-	25.4	38.1	V-0	240	200	-	-	-	-	-

Polyimide (PI) Base films with A508 adhesive on one or both sides, furnished as sheets.
LPI(#)/@-FR (##)

	NC	0.013	0.013	18	18	V-0	240	200	0	3	-	4	Yes
		0.025	0.025	30.5	30.5	V-0	240	200	5	3	0	4	-
		0.050	0.050	30.5	30.5	V-0	240	200	-	-	-	-	-

Polyimide (PI) Base films with A508 adhesive on one or both sides.
LPI0.5\$/@-FR

	NT	0.013	0.013	18	18	V-0	240	200	0	3	-	4	Yes
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Polyimide (PI) Base films with Acrylic adhesive on one side only, furnished as sheets.
AFA1-FR

	NC	0.025	0.050	25	25	V-0	-	-	-	-	-	-	-
--	----	-------	-------	----	----	-----	---	---	---	---	---	---	---

AFA1.5-FR

	NC	0.025	0.050	38	38	V-0	-	-	-	-	-	-	-
--	----	-------	-------	----	----	-----	---	---	---	---	---	---	---

Polyimide (PI) Base films (Adhesiveless).
2LTPI#\$/D

	NC	0.0125	0.0125	-	-	VTM-0	130	130	1	3	-	-	Yes
		0.0181	0.0181	-	-	VTM-0	130	130	1	2	-	-	Yes
		0.025	0.025	-	-	VTM-0	130	130	1	2	-	-	Yes
		0.050	0.050	-	-	V-0	130	130	1	2	-	3	Yes

Polyimide (PI) Base films with Epoxy (EP) adhesive on one or both sides, furnished as sheets or rolls.

LPI#\$/@-HF													
	NC	0.0125	0.050	12	30	V-0	220	220	4	1	-	3	Yes

Metal clad films:

Metal Clad Dsg	Lam- inate Dsg	Pre- preg Dsg	Film		Adhesive		Clad Cond Thk			Max Area Dia	Max Flame Class	Max Oper Temp (°C)	Solder Temp (°C)	Lts Time (sec)
			Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Min Ext (mic)	Max Ext (mic)	Max Int (mic)					
Polyester with A508 adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets.														
LPET%/D-FR														
	LPET%/D-FR	-	0.050	0.125	30.5	30.5	17	68	-	50.8	V-0	105	248	10
Polyester with A508 adhesive Metal clad films for use in single layer printed wiring boards with copper on one side only, furnished as sheets.														
LPET%\$/S-FR														
	LPET%\$/S-FR	-	0.050	0.125	30.5	30.5	17	68	-	50.8	VTM-1	105	204	5
Polyethylene Terephthalate (PET) with Epoxy and Polyester adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls.														
LPET#\$/@-HFR														
	LPET#\$/@-HFR	-	0.025	0.050	18	35	17	70	-	50.8	VTM-0	105	204	5
Polyimide (PI) with A508 adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets.														
LPI(#)\$/@-FR														
	LPI(#)\$/@-FR	-	0.025	0.50	30.5	30.5	17	68	-	50.8	V-0	120	288	10
Polyimide (PI) (Adhesiveless) Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls.														
2LTPI#\$/D														
	2LTPI#\$/D	-	0.0125	0.0125	-	-	9	50	-	50.8	VTM-0	130	288	10
			0.0181	0.0181	-	-	9	50	-	50.8	VTM-0	130	288	10
			0.025	0.025	-	-	9	50	-	50.8	VTM-0	130	288	10
			0.050	0.050	-	-	9	50	-	50.8	V-0	130	288	10
Polyimide (PI) with Epoxy (EP) adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets or rolls.														

LPI#\$/@-HF														
	LPI#\$/@-HF	-	0.0125	0.050	12	30	12	70	-	50.8	V-0	105	288	10

Metal clad films (Flammability Only Recognition):

Metal Clad Dsg	Lam- inate Dsg	Pre- preg Dsg	Film		Adhesive		Clad Cond Thk			Max Area Dia (mm)	Flame Class	Max Oper Temp (°C)	Solder Lts	
			Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	Min Ext (mic)	Max Ext (mic)	Max Int (mic)				Temp (°C)	Time (sec)
Polyethylene Terephthalate (PET) with Epoxy adhesive Metal clad films for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets (Flammability Only Recognition).														
LPET1\$/@-FR														
	-	-	0.0234	0.0234	20	50	-	-	-	-	VTM-0	-	204	5

Coverlays:

Mtl Dsg	Color	Film		Adhesive		Flame Class
		Min Thk (mm)	Max Thk (mm)	Min Thk (mic)	Max Thk (mic)	
Polyethylene Terephthalate (PET) film with Epoxy adhesive Coverlays for use in flexible printed wiring boards, furnished as sheets.						
CPET-FR!	NC	0.023	0.050	25	50	VTM-0
Polyethylene Terephthalate (PET) film with Epoxy and Polyester adhesive Coverlays for use in flexible printed wiring boards, furnished as sheets or rolls.						
CPET#E&-HFR						
	WT	0.025	0.050	15	35	VTM-0
Polyimide (PI) film with Epoxy (EP) adhesive Coverlays for use in flexible printed wiring boards.						
CPI#E&-HF						
	NC	0.0125	0.050	15	35	VTM-0

! - The shipment of Coverlay Grade CPET-FR must always coated with one sided adhesive.

\$ - Denotes ED or RA copper foil

% - Denotes film thickness in mils (2, 3, 4, 5).

& - Denotes adhesive thickness in mils

(##) - The temperature index applies to polyimide film component only.

(#) - Denotes film thickness in mils

@ - Denotes S for single-sided or D for double-sided.

Marking: Company name and material designation on container or wrapper.

Last Updated on 2020-11-12

QMJU2

Coatings For Use on Recognized Printed Wiring Boards - Component

UNIRES CHEMICAL INDUSTRIAL CO LTD

E206920

**KUANYIN INDUSTRIAL DISTRICT 22 CHING CHIAN 4TH RD,
TAOYUAN HSIEN 328 TAIWAN**

Mtl	Dsg	Col	Coating Mtl		UL94		Lam		Sold Lts	
			Min Mils	Max Mils	Flame	ANSI	Min Thk		Max	Max
			(Mics)	(Mics)	Class	Grade	In. (mm)	Temp C	Time sec	
Resist coatings for use on Recognized printed wiring boards, furnished in the form of a two component liquid.										
PSM-800@/SMH-800	ALL		0.40	0.79	94V-0	FR-4,	0.015 (0.20)	290		20
			(10)	(20)						

@-May be followed by an alphanumeric code to indicate color.

Marking: Company name and material designation on container or wrapper.

QOQW2.MH17478 - Polymeric Adhesive Systems,
Electrical Equipment - Component

Polymeric Adhesive Systems, Electrical Equipment - Component

See General Information for Polymeric Adhesive Systems, Electrical Equipment - Component

3M COMPANY INDUSTRIAL ADHESIVES & TAPES DIV
3M CENTER
BLDG 230-3G-07
SAINT PAUL, MN 55144-1001 USA

MH17478

Product Dsg	Surface [+]	Min Temp (°C)	Max Temp (°C)	Indoor Use	Outdoor Use
3M™ Electrical Insulating Polyester Film Tape Single-Sided Tape					
1350FB-1, 1350FW-1, 1350F-1	Aluminum	0	60	Yes	-
	Galvanized steel	0	60	Yes	-
	Polycarbonate	0	60	Yes	-
3M™ Adhesive Transfer Tapes with 3M™ Adhesive 100HT					
9082	Epoxy Glass Laminate (G-10, G-11, FR-4, FR-5)	-35	120	Yes	Yes
	Inorganic Flame Barrier sheet (FRB-NT, FRB-WT)	-35	120	Yes	Yes
	Polyester powder paint	-35	120	Yes	Yes
	Inorganic Flame Barrier sheet (FRB-BK)	-35	110	Yes	Yes
	Solder Mask	-35	110	Yes	Yes
3M™ Adhesive Transfer Tapes with 3M™ Adhesive 100MP					
9437, 9460PC, F-9460PC, 9473PC, F-9473PC, 9469PC, 9469FL, F-9469PC					
	Aluminum	-35	110	Yes	Yes
	Ceramic	-35	110	Yes	Yes
	Enameled steel	-35	110	Yes	Yes
	Epoxy Glass Laminate (FR-4, G-10)	-35	110	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	110	Yes	Yes
	Stainless steel	-35	110	Yes	Yes
	Acrylonitrile butadiene styrene	-35	90	Yes	Yes

	Galvanized steel	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Rigid Polyvinyl chloride	-35	75	Yes	Yes
9469PC, F-9469PC	Nickel plated iron	-35	110	Yes	Yes
3M™ Adhesive Transfer Tapes with 3M™ Adhesive 200MP					
467MP, 467MPF, 467MPL, 468MP, 468MPF, 468MPL, 7952MP, 7952MPL, 7955MP, 7955MPL, 7962MP, 7962MPL, 7965MP, 9172MP, 9172PT, 9185MP, 9667MP, 9668MP, 9679MP					
	Acrylic/Urethane coated Polycarbonate	-35	85	Yes	Yes
	Polycarbonate	-35	85	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
467MP, 467MPF, 467MPL, 7952MP, 7952MPL, 7962MP, 7962MPL, 9172MP, 9172PT, 9667MP, 9679MP					
	Epoxy Glass Laminate (FR-4, FR-5, G-10, G-11)	-35	100	Yes	Yes
	Inorganic Flame Barrier Sheet	-35	100	Yes	Yes
	Polyester powder paint	-35	100	Yes	Yes
	Solder Mask	-35	100	Yes	Yes
	TGIC Powder Coat	-35	100	Yes	Yes
	Aluminum	-35	85	Yes	Yes
	Aluminum coated Steel	-35	85	Yes	Yes
	Galvanized steel	-35	85	Yes	Yes
	PET	-35	85	Yes	Yes
	PPE+PS	-35	85	Yes	Yes
	Stainless steel	-35	85	Yes	Yes
468MP, 468MPF, 7965MP, 9185MP, 9668MP, 9668MPL	Acrylic paint	-35	60	Yes	Yes
	Polyester paint	-35	60	Yes	Yes
	Urethane paint	-35	60	Yes	Yes
3M™ Adhesive Transfer Tapes with 3M™ Adhesive 300LSE					
8132LE, 9471LE, 9671LE	Polycarbonate	-35	80	Yes	Yes
	Polyester powder paint	-35	80	Yes	Yes
8153LE	Acrylic paint	-35	60	Yes	Yes
	Polyester paint	-35	60	Yes	Yes
	Urethane paint	-35	60	Yes	Yes
3M™ Adhesive Transfer Tapes with 3M™ Adhesive 300MP					

7951, 9772WL, 9773WL, 9774WL, 9775WL, 9784	Polyethylene terephthalate	-35	85	Yes	Yes
	Acrylic powder coating	-35	80	Yes	Yes
	Acrylonitrile butadiene styrene	-35	80	Yes	Yes
	Epoxy powder coating	-35	80	Yes	Yes
	Polyester-Epoxy hybrid powder coating	-35	80	Yes	Yes
	Polyvinyl chloride	-35	80	Yes	Yes
	Stainless steel	-35	80	Yes	Yes
	TGIC Polyester powder coating	-35	80	Yes	Yes
	Urethane polyester powder coating	-35	80	Yes	Yes
3M™ Adhesive Transfer Tapes with 3M™ Adhesive 350					
926, 9442, 9445, 9482PC, 9485EK, 9485PC, 9675	Aluminum	-35	90	Yes	Yes
	Ceramic	-35	90	Yes	Yes
	Enameled steel	-35	90	Yes	Yes
	Epoxy Glass Laminate (FR-4, G-10)	-35	90	Yes	Yes
	Galvanized steel	-35	90	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Rigid Polyvinyl chloride	-35	75	Yes	Yes
3M™ Double Coated Polyethylene Foam Tapes					
4492B, 4492W, 4496B, 4496W	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Aluminum	-35	75	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	75	Yes	Yes
	Polyamide	-35	75	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
	Stainless steel	-35	75	Yes	Yes
	Steel	-35	75	Yes	Yes
3M™ Double Coated Tapes with 3M™ Adhesive 200MP					

7945MP, 7953MP, 7956MP, 7956MWS, 7956WDL, 7957MP, 7959MP, 7961MP, 9045MP, 9056MP, 9057MP, 9057MPW, 9059MP, 9061MP, EAD217					
	Acrylic/Urethane coated Polycarbonate	-35	85	Yes	Yes
	Aluminum	-35	85	Yes	Yes
	Aluminum coated steel	-35	85	Yes	Yes
	Galvanized steel	-35	85	Yes	Yes
	Polycarbonate	-35	85	Yes	Yes
	Stainless steel	-35	85	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
7966MWS, 7966WDL	Acrylic/Urethane coated Polycarbonate	-35	85	Yes	Yes
	Polycarbonate	-35	85	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
3M™ Double Coated Tapes with 3M™ Adhesive 300LSE					
93004LE, 93005LE, 93010LE, 93015LE, 93020LE	Aluminum	-35	75	Yes	Yes
	Aluminum (flexible) to Stainless steel (rigid)	-35	75	Yes	Yes
	Polypropylene (flexible) to Polyvinyl chloride (rigid)	-35	75	Yes	Yes
	Stainless steel	-35	75	Yes	Yes
	Polypropylene	-35	60	Yes	Yes
	Polyvinyl chloride	-35	60	Yes	Yes
93020LE	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Polycarbonate	-35	75	Yes	Yes
	Polyester	-35	75	Yes	Yes
3M™ Scotch-Weld™ Two-Part Acrylic Adhesive					
DP8407NS	Aluminum	-35	90	Yes	Yes
	Cold rolled steel	-35	90	Yes	Yes
	Copper	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
DP8805NS, DP8810NS green, DP8810NS gray, DP8825NS, DP8405NS, DP8410NS, DP8425NS					
	Aluminum	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
3M™ Scotch-Weld™ Two-Part Acrylic Adhesives					

DP810 (a), DP810 Black (a)	Acrylonitrile butadiene styrene	-35	60	Yes	Yes
	Aluminum	-35	60	Yes	Yes
	Magnesium	-35	60	Yes	Yes
	Polycarbonate	-35	60	Yes	Yes
	Stainless steel	-35	60	Yes	Yes
3M™ Solar Acrylic Foam Tape					
2204(b), 2304(b)	Aluminum	-35	120	Yes	Yes
	Galvanized steel	-35	120	Yes	Yes
	Glass	-35	120	Yes	Yes
3230	Acrylic/Polyurethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
4063, 4080, 4110	Acrylic	-35	90	Yes	Yes
4063, 4080, 4110, 4155	Acrylic/Polyurethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Coated Polycarbonate ((Polycarbonate coating limited to 3M Tape Primer 94 or 3M Adhesion Promoter 4298UV))	-35	90	Yes	Yes
	Enameled Steel	-35	90	Yes	Yes
	Epoxy Polyester paint	-35	90	Yes	Yes
	Epoxy paint	-35	90	Yes	Yes
	Galvanized steel	-35	90	Yes	Yes
	Glass Epoxy	-35	90	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
	Polyphenylene ether	-35	90	Yes	Yes
	Silane coated Glass	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
	Uncoated Glass	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Rigid Polyvinyl Chloride	-35	75	Yes	Yes

4110	Cellulose acetate butyrate	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
4155	Polycarbonate	-35	90	Yes	Yes
	Acrylic	-35	80	Yes	Yes
6050	Acrylic / Polyurethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
FB80, FB80LW, 2080, 4433E, 4434E	Aluminum	-35	90	Yes	Yes
	Brass	-35	90	Yes	Yes
	Copper	-35	90	Yes	Yes
	Glass	-35	90	Yes	Yes
	Nickel	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
3M™ Solar Acrylic Foam Tapes					
2063, 2110, 2155	Aluminum	-35	110	Yes	Yes
	Epoxy Glass Laminates (FR-4)	-35	110	Yes	Yes
	Galvanized steel	-35	110	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	110	Yes	Yes
	Stainless steel	-35	110	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Rigid Polyvinyl Chloride	-35	75	Yes	Yes
3M™ Thermally Conductive Adhesive Transfer Tapes					
8805, 8810, 8815	Anodized aluminum	-35	100	Yes	Yes
	Epoxy Glass Laminates (FR-4, G-10)	-35	100	Yes	Yes
9882, 9885, 9890	Epoxy Glass Laminates (FR-4, G-10)	-35	110	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
3M™ VHB Tapes					
5915, 5915P, 5915WF, 5925, 5925P, 5925WF, 5930, 5930P, 5930WF, 5952, 5952P, 5952WF					
	Acrylic	-35	90	Yes	Yes

5915, 5915P, 5915WF, 5952, 5952P, 5952WF, 5962, 5962P, 5962WF					
	Polycarbonate	-35	90	Yes	Yes
3M™ VHB™ Tapes					
4611, 4646, 4655	Aluminum	-35	110	Yes	Yes
	Epoxy Glass Laminate (FR-4)	-35	110	Yes	Yes
	Galvanized steel	-35	110	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	110	Yes	Yes
	Stainless steel	-35	110	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Rigid polyvinyl chloride	-35	75	Yes	Yes
4615	Aluminum	-35	110	Yes	Yes
	Enameled steel	-35	110	Yes	Yes
	Epoxy Glass Laminate (FR-4, G-10)	-35	110	Yes	Yes
	Galvanized steel	-35	110	Yes	Yes
	Stainless steel	-35	110	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
4905, 4910	Acrylic/Polyurethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
4912 (b), 4912F (b), 4955 (b), 4955F (b), 4959 (b), 4959F (b)					
	Aluminum	-35	120	Yes	Yes
	Galvanized steel	-35	120	Yes	Yes
	Glass	-35	120	Yes	Yes
4914, 4920, 4930, 4950	Aluminum	-35	110	Yes	Yes
	Ceramic	-35	110	Yes	Yes
	Enameled steel	-35	110	Yes	Yes
	Epoxy Glass Laminate (FR-4, G-10)	-35	110	Yes	Yes
	Galvanized steel	-35	110	Yes	Yes

	Stainless steel	-35	110	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Polycarbonate	-35	75	Yes	Yes
	Rigid Polyvinyl chloride	-35	75	Yes	Yes
4919F, 4919P, 4926, 4936, 4936F, 4941, 4941F, 4956, 4956F, 4979, 4979F, 4946, 4947F, 4947P					
	Ceramic	-35	110	Yes	Yes
	Acrylic/Urethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Enameled steel	-35	90	Yes	Yes
	Galvanized steel	-35	90	Yes	Yes
	Glass (with and without silane coating)	-35	90	Yes	Yes
	Glass/Epoxy (Grade G-10, FR-4)	-35	90	Yes	Yes
	Nickel coated ABS	-35	90	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
	Rigid Polyvinyl Chloride (PVC)	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
4920, 4930, 4950	Acrylic	-35	90	Yes	Yes
4922	Aluminum	-35	110	Yes	Yes
	Enameled steel	-35	110	Yes	Yes
	Galvanized steel	-35	110	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	110	Yes	Yes
	Acrylonitrile butadiene styrene	-35	90	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Unplasticized polyvinyl chloride	-35	75	Yes	Yes
4945	Aluminum	-35	110	Yes	Yes
	Enameled steel	-35	110	Yes	Yes
	Galvanized steel	-35	110	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	110	Yes	Yes

	Acrylic/Polyurethane paint	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	90	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
	Unplasticized polyvinyl chloride	-35	75	Yes	Yes
4991	Acrylic/Polyurethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
5915, 5915P, 5915WF, 5925, 5925P, 5925WF, 5930, 5930P, 5930WF, 5952, 5952P, 5952WF, 5962, 5962P, 5962WF					
	Acrylic/Polyurethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Coated Polycarbonate (Polycarbonate coating limited to 3M Tape Primer 94 or 3M Adhesion Promoter 4298UV.)	-35	90	Yes	Yes
	Enameled steel	-35	90	Yes	Yes
	Epoxy paint	-35	90	Yes	Yes
	Epoxy/Polyester paint	-35	90	Yes	Yes
	Galvanized steel	-35	90	Yes	Yes
	Glass epoxy	-35	90	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
	Polyphenylene ether	-35	90	Yes	Yes
	Silane coated glass	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
	Uncoated glass	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Rigid polyvinyl chloride	-35	75	Yes	Yes
5952, 5952P, 5952WF	Cellulose acetate butyrate	-35	90	Yes	Yes
5962, 5962P, 5962WF	Acrylic	-35	80	Yes	Yes
RP16, RP16F	Aluminum	-35	90	Yes	Yes

	Silane coated glass	-35	90	Yes	Yes
RP16, RP16F, RP25, RP25F, RP32, RP32F, RP45, RP45F, RP62, RP62F					
	Acrylic urethane paint	-35	90	Yes	Yes
	Coated epoxy paint (Coating is 3M Adhesive Promoter 111.)	-35	90	Yes	Yes
	Coated polyester paint (Coating is 3M Adhesive Promoter 111.)	-35	90	Yes	Yes
	Enameled steel	-35	90	Yes	Yes
	Epoxy paint	-35	90	Yes	Yes
	Epoxy/Polyester paint	-35	90	Yes	Yes
	Galvanized steel	-35	90	Yes	Yes
	Glass Epoxy	-35	90	Yes	Yes
	Nylon - Polyamide	-35	90	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	90	Yes	Yes
	Polybutylene terephthalate	-35	90	Yes	Yes
	Polycarbonate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
	Polyphenylene ether/Polystyrene blend	-35	90	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
RP62, RP62F	Acrylic	-35	90	Yes	Yes
	Glass	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
Double-Sided Tape "VHB Tapes"					
GPH-060GF, GPH-110GF, GPH-160GF (c) (d)	Acrylic/Urethane paint	-35	90	Yes	Yes
	Aluminum	-35	90	Yes	Yes
	Enameled steel	-35	90	Yes	Yes
	Epoxy (glass filled)	-35	90	Yes	Yes
	Epoxy paint	-35	90	Yes	Yes
	Epoxy/Polyester paint	-35	90	Yes	Yes
	Galvanized steel	-35	90	Yes	Yes
	Glass	-35	90	Yes	Yes
	Phenolic	-35	90	Yes	Yes

	Polybutylene terephthalate	-35	90	Yes	Yes
	Polyester paint	-35	90	Yes	Yes
	Polyethylene ether/Polystyrene	-35	90	Yes	Yes
	Stainless steel	-35	90	Yes	Yes
	Acrylic	-35	80	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
LSE-060WF, LSE-110WF	Acrylic	-35	75	Yes	Yes
	Acrylic/Urethane paint	-35	75	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Epoxy paint	-35	75	Yes	Yes
	Epoxy/Polyester paint	-35	75	Yes	Yes
	Glass	-35	75	Yes	Yes
	Glass Epoxy	-35	75	Yes	Yes
	Nylon - Polyamide	-35	75	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	75	Yes	Yes
	Polybutylene terephthalate	-35	75	Yes	Yes
	Polycarbonate	-35	75	Yes	Yes
	Polyester paint	-35	75	Yes	Yes
	Polyphenylene ether/Polystyrene	-35	75	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
	Silane coated glass	-35	75	Yes	Yes
	Stainless steel	-35	75	Yes	Yes
LSE-160WF	Acrylic	-35	75	Yes	Yes
	Acrylic/Urethane paint	-35	75	Yes	Yes
	Acrylonitrile butadiene styrene	-35	75	Yes	Yes
	Aluminum	-35	75	Yes	Yes
	Enameled steel	-35	75	Yes	Yes
	Epoxy paint	-35	75	Yes	Yes
	Epoxy/Polyester paint	-35	75	Yes	Yes
	Galvanized steel	-35	75	Yes	Yes
	Glass	-35	75	Yes	Yes
	Glass Epoxy	-35	75	Yes	Yes

	Nylon - Polyamide	-35	75	Yes	Yes
	Phenolic - Phenol Formaldehyde	-35	75	Yes	Yes
	Polybutylene terephthalate	-35	75	Yes	Yes
	Polycarbonate	-35	75	Yes	Yes
	Polyester paint	-35	75	Yes	Yes
	Polyphenylene ether/Polystyrene	-35	75	Yes	Yes
	Polyvinyl chloride	-35	75	Yes	Yes
	Silane coated glass	-35	75	Yes	Yes
	Stainless steel	-35	75	Yes	Yes

[+] - The adhesive systems may be used for securement of any combination of the surfaces listed with that system. The lowest maximum temperature of the individual surface applies to the combination.

(a) - Cured Adhesive thickness 0.003" to 0.010".

(b) - Substrates can be used with or without primer(s)/Coating. 3M Silane Coating, 3M Adhesion Promoter 4298UV and 3M Tape Primer 94 are used with glass substrate. 3M Primer AP111, 3M Adhesion Promoter 4298UV and 3M Tape Primer 94 are used with aluminum and galvanized steel substrates.

(c) - Glass substrates can be used with or without primer/coating 3M Silane.

(d) - Acrylic urethane paint, epoxy paint, epoxy/polyester paint, polyester paint substrates can be used with or without primer/coating 3M AP111.

Marking: Company name and model designation on the product or on the smallest unit container in which the product is packaged.

Last Updated on 2020-11-05

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