

Asia Insulation Materials Inc
10 Cheswold Blvd #1D, Newark DE 19713

System Component

System Designation

System Class

-

AIM-19.1

130(B)

Report Date: 2019-07-15

© 2019 UL LLC



Construction Details (Table I)

The use of this insulation system is limited to the combination of materials specified below. Where more than one item is designated under insulation function, they may be used together, unless otherwise indicated, or they may be used as alternates to one another. Functions designated "optional" are not necessarily required for every design. Insulation thicknesses and/or layers below indicated are minimum

Filament Wire

Additional Ground & Interwinding insulation **is** required to separate this winding from other windings or between this winding and grounded/dead metal
Recognized Component Single and Multi-Layer Insulated Winding Wire (OBJT2) listed below
Recognized Component Appliance Wiring Material (AVLV2) listed below
Unless otherwise noted, winding wire types listed below may be used in combination within a single product

Asia Insulation Materials Inc [E498179] - Recognized Component

***@*xUEW130 (a)**

\$ or (a) - Litz wire may employ a silk covering. Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

@*xUEW155 (a)

\$ or (a) - Litz wire may employ a silk covering. Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

@*xUEW180 (a)

\$ or (a) - Litz wire may employ a silk covering. Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

xUEW/NY\$/130, QAN-x/130\$

\$ or (a) - Litz wire may employ a silk covering. Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

xUEW/NY\$/155, QAN-x/155\$

\$ or (a) - Litz wire may employ a silk covering. Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

xUEW/NY\$/180, QAN-x/180\$

\$ or (a) - Litz wire may employ a silk covering. Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

DONGGUAN AOERTAI ELECTRICAL MATERIAL CO LTD [E352239] - Recognized Component

ART-TIW-B

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

ART-TIW-F

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

DONGGUAN HILDE ELECTRONICS CO LTD [E356133] - Recognized Component

THW-B

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

THW-F

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

THW-F-LITZ

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

HUIZHOU CITY DENGGAODA ELECTROTECH CO LTD [E501004] - Recognized Component

FIW B

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

FIW F

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

Kunshan Haoyue Wire And Cable Co Ltd [E475710] - Recognized Component

TIWF-F, TIWF-F-1

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

TAIYO MAGNET WIRE CO LTD [E350882] - Recognized Component

TLW-B3#@**

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

TLW-F3#@**

Conductor must be R/C - Magnet Wires (OBMW2), ANSI MW type: MW 28, MW 75, MW 79, MW 80, MW 82, MW83

Filament Wire

Additional Ground & Interwinding insulation **is not** required to separate this winding from other windings or between this winding and grounded/dead metal
Recognized Component Single and Multi-Layer Insulated Winding Wire (OBJT2) listed below
Recognized Component Appliance Wiring Material (AVLV2) listed below
Unless otherwise noted, winding wire types listed below may be used in combination within a single product

FURUKAWA ELECTRIC CO LTD [E206440] - Recognized Component

TEX-E, TEX-EA

3.3 (0.08)

TEX-ECEW3

3.3 (0.08)

TEX-ELZ

3.3 (0.08)

TOTOKU ELECTRIC CO LTD [E166483] - Recognized Component

TIW-3LZX@@@%\$

3.9 (0.1)

TIW-3X\$

3.9 (0.1)

Enameled Wire

Recognized Component - Magnet wire (OBMW2), single build or greater, round or rectangular, copper or aluminum unless stated otherwise for the types listed below
Ground Insulation is required to separate this winding from grounded/dead metal
Interwinding Insulation **is** required to separate this winding from other enameled wire
Unless otherwise noted, Winding Wire types listed below may be used in combination within a single product

ANSI Type

MW 28

MW 75

MW 79

MW 80

MW 82

Temp(°C)

and 130°C

and 130°C

or 155°C

or 155°C

or 180°C

Basecoat(Topcoat)

Polyurethane (Polyamide)

Polyurethane

Polyurethane

Polyurethane (Polyamide)

Polyurethane

MW 83
MW 85

or 180°C Polyurethane (Polyamide)
or 180°C Polyurethane

Ground and Interwinding Insulations

any Recognized Component Plastic (QMFZ2), polyethylene terephthalate film (PET) 3 mils

Designation	mils(mm)	comments
<u>3M COMPANY [E17385] - Recognized Component</u>		
1 (a)	3[layers]	
1298 (b)	3[layers]	
1298CR	3[layers]	
1318 clear (a)	3[layers]	
1318-1 (a)	3[layers]	
1318-2 (a)	2[layers]	
1318B-1	3[layers]	
1318B-2	2[layers]	
1318MW-1 (a)	3[layers]	
1318MW-2 (a)	2[layers]	
1318W-1	2[layers]	
1318W-2	2[layers]	
1318Y-1 (a)	3[layers]	
1318Y-2 (a)	2[layers]	
1350-1 (b)	3[layers]	
1350-2 (c)	3[layers]	
1350CR-1	3[layers]	
1350CR-2	2[layers]	
1350F-1 (b)	3[layers]	
1350F-2 (c)	2[layers]	
1350T-1 (b)	6[layers]	
1350T-2 (b)	3[layers]	
1350T-3 (b)	3[layers]	
1351-1 (a)	3[layers]	
1351-2 (c)	2[layers]	
1351T-1 (a)	6[layers]	
1351T-2 (a)	3[layers]	
1351T-3 (a)	3[layers]	
1388W-1 (b)	3[layers]	
1388Y-1 (b)	3[layers]	
44 (a)	3[layers]	
44-T (a)	3[layers]	
44D (a)	3[layers]	
44D-A (a)	3[layers]	
44T-A (a)	3[layers]	
5	3[layers]	
54 (a)	3[layers]	
56 (a)	3[layers]	
Super 10 (a)	2[layers]	
Super 20 (a)	2[layers]	
<u>ASIA INSULATION MATERIALS INC</u>		
G151	20 (0.51)	
G730F	20 (0.51)	
G833	17 (0.43)	
<u>CHANG CHUN PLASTICS CO LTD [E59481] - Recognized Component</u>		
T200HF	15 (0.38)	
T220NA	15 (0.38)	
<u>CHANG SHU LIANG YI TAPE INDUSTRY CO LTD [E246820] - Recognized Component</u>		
LY-19-01-15 (c)(d)	3[layers]	
LY-19-01-18 (c)(d)	3[layers]	
LY-19-01-20 (c)(d)	3[layers]	
LY-19-01-25 (c)(d)	3[layers]	
LY-19-01-40 (c)(d)	3[layers]	
LY-19-01-85 (e)(d)	3[layers]	
LY-19-02-15 (c)(d)	3[layers]	
LY-19-02-18 (c)(d)	3[layers]	
LY-19-02-20 (c)(d)	3[layers]	
LY-19-02-25 (c)(d)	3[layers]	
LY-19-02-40 (c)(d)	3[layers]	
<u>DONGGUAN SHIN YAHUA ELECTRONIC MATERIAL CO LTD [E324093] - Recognized Component</u>		
CT* (b)(g)	1[layers]	
CT* (c)(g)	1[layers]	
PZ* (b)	1[layers]	
WF* (c)(h)	1[layers]	
<u>DUPONT TEIJIN FILMS U S L P [E93687] - Recognized Component</u>		
MYLAR Mylar A, AP, EL21, MO21	3 (0.08)	
<u>E I DUPONT DE NEMOURS & CO INC [E34739] - Recognized Component</u>		
Nomex® 410	5 (0.13)	
Nomex® 411	11.5 (0.29)	
Nomex® 414	5 (0.13)	
Nomex® 416, 416 LAM	5 (0.13)	
Nomex® 418, 818, 864LAM	5 (0.13)	
Nomex® 464, 464 LAM	5 (0.13)	
Nomex® 992, 992PSB	10 (0.25)	
Nomex® 993, 993PSB	8.25 (0.21)	
Nomex® 994, 994PSB	8.25 (0.21)	
<u>E I DUPONT DE NEMOURS & CO INC [E41938] - Recognized Component</u>		
Rynite FR515	16 (0.41)	
Rynite FR530(I)(+)(f1), FR530L(I)(+)(f1)	16 (0.41)	
<u>HITACHI CHEMICAL CO LTD [E42956] - Recognized Component</u>		
CP-J-8800, CP-J-NAF, CP-J-F(N)	15 (0.38)	
<u>INTERTAPE POLYMER GROUP [E20780] - Recognized Component</u>		
4426-00 (41)*	3[layers]	
51560-08 (a)	3[layers]	

51596-04* (b)	3[layers]
<u>JINGJIANG FUWEI ADHESIVE PRODUCT CO LTD [E302608] - Recognized Component</u>	
FW	3[layers]
WF101	3[layers]
<u>JINGJIANG JINGYANG INSULATING PRODUCT CO LTD [E309872] - Recognized Component</u>	
JY-133	3[layers]
JY-233	1[layers]
<u>JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD [E246950] - Recognized Component</u>	
JY25-A (b)	3[layers]
WF310 (a)	1[layers]
<u>JINGJIANG YAHUA ELECTRONIC SCIENCE&TECHNOLOGY CO LTD [E478268] - Recognized Component</u>	
CT (b)	1[layers]
WF-2901/2 (a)	1[layers]
<u>JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD [E165111] - Recognized Component</u>	
CT* (b)(g)	3[layers]
CT* (c)(g)	3[layers]
CT-280B	6[layers]
PZ* (b)	3[layers]
WF* (c)(h)	3[layers]
WFF(f)	1[layers]
<u>METAL LINE CO LTD [E162848] - Recognized Component</u>	
800 (a)	6[layers]
800BT	3[layers]
<u>NITTO DENKO CORP [E34833] - Recognized Component</u>	
3161-FR1	3[layers]
3161-FR2	3[layers]
<u>Shanghai Yuxiang Electrical Materials Co Ltd [E474901] - Recognized Component</u>	
YX-5#	3[layers]
<u>SHENZHEN CITY WEICHUANGDA MATERIAL TECHNOLOGY CO LTD [E333581] - Recognized Component</u>	
W-001	3[layers]
<u>SHENZHEN MEIXIN ELECTRONIC CO LTD [E304309] - Recognized Component</u>	
MX-866	3[layers]
<u>Shenzhen Xinhuaui Adhesive Technology Co Ltd [E328315] - Recognized Component</u>	
HMT803	3[layers]
HMT804	3[layers]
<u>SUMITOMO BAKELITE CO LTD [E41429] - Recognized Component</u>	
Sumikon PM-9630	15 (0.38)
Sumikon PM-9820	15 (0.38)
PM-9823	15 (0.38)
<u>SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD [E188295] - Recognized Component</u>	
JY312#	3[layers]
<u>SYMBIO INC [E50292] - Recognized Component</u>	
35660 (a)	2[layers]
35660Y (e)	2[layers]
35661 (c)	3[layers]
MY130 (b)	3[layers]
MY9XAF (g)	3[layers]
<u>TAE HWA INDUSTRIAL CO LTD [E92677] - Recognized Component</u>	
H-5673 (+)	1[layers]
<u>TERAOKA SEISAKUSHO CO LTD [E56086] - Recognized Component</u>	
630F #25 (a)	3[layers]
630F2 #50 (i)	2[layers]
631S #25 (a)	2[layers]
631S #38 (d)	2[layers]
632S #25 (a)	3[layers]
<u>XINFENG GHILLIE ELECTRICAL MATERIALS CO LTD [E326305] - Recognized Component</u>	
JL-P208 (a)	3[layers]
JL-P208 (b)	3[layers]
<u>XINYU SHENGDAFENG ELECTRIC MATERIAL CO LTD [E317896] - Recognized Component</u>	
SDF-312	3[layers]
SDF-317	1[layers]

Lead Wires

lead wires are optional for this system

Temp	Insulation
105°C	PVC - polyvinylchloride +
105°C	ETFE - ethylene tetrafluoroethylene +
105°C	XLPE - crosslinked polyethylene +
125°C	XLPE - crosslinked polyethylene
125°C	EPDM - ethylene propylene diene monomer
150°C	SR - silicone rubber(with or without braid)
150°C	EPDM - ethylene propylene diene monomer
150°C	ETFE - ethylene tetrafluoroethylene
150°C	XLPE - crosslinked polyethylene
150°C	XLPO - crosslinked polyolefin
180°C	SR - silicone rubber(with or without braid)
200°C	FEP - fluorinated ethylene propylene

+ To be isolated from direct contact with windings (magnet wire) by any insulating material (tape, layer insulation, sleeving, etc.) listed in this table - unless specifically excluded from this requirement by a special note at the beginning of this table.

any sheet insulation or tape described in this table with no minimum thickness requirement may be used as a minor sheet material

Tapes

tapes are optional for this system

Designation	comments
3M (Minnesota Mining & Mfg Co)	

11	thermosetting rubber adhesive, black acetate cloth
12	
1318(#)	
1418	
16	
28	thermosetting rubber adhesive, acetate cloth
28L	
44-18	
90	glass cloth
92	

3M COMPANY [E17385] - Listed or Recognized Component

1205

27 (a)

69 (a)

Nitto Denko Corp

343BN@ (a)

Symbio Inc

KA00M

MY90AF

MY92AF

MY93AF

MY9BAF

MY9YLH

Teraoka Seisakusho Co., Ltd.

632#50(a)

Core tubes and Bobbins

(for mechanical support only) cores are optional for this system

Designation	comments
-------------	----------

CHANG CHUN PLASTICS CO LTD [E59481] - employing Recognized materials

LONGLITE T373J

LONGLITE T375HF

LONGLITE T375J

LCP-300

T200NA

Chang Chun Plastics Co., Ltd.

4115 (100% Virgin) (a) (f1)

PBT-4130

PBT-5630

T355J

CHANGSHU SOUTH-EAST PLASTIC CO LTD [E136137] - employing Recognized materials

PF2A5-151J(b)

E I DUPONT DE NEMOURS & CO INC [E41938] - employing Recognized materials

Crastin SK665FR (+)

Rynite FR530(I)(+)(f1), FR530L(I)(+)(f1)

Zytel 101(r9)(f1), 101F(r9)(f1), 101L(r9)(f1), E101(r9)(f1), E101L(r9)(f1)

Zytel 70G13L

Zytel 70G30L

Zytel 70G33L(+)

Zytel FR50(+)(f1)

HITACHI CHEMICAL CO LTD [E42956] - employing Recognized materials

CP-J-8200

CP-J-8600, CP-J-ALPHA-G

CP-J-8700

Jiangsu Wote High Performance Materials Co Ltd [E478701] - employing Recognized materials

KB40M(E), KB40BM(E)

NAN YA PLASTICS (HUI ZHOU) CORP LTD [E235269] - employing Recognized materials

1403G3

1403G6

SUMITOMO BAKELITE CO LTD [E41429] - employing Recognized materials

Sumikon AM-1130, AM-113

Sumikon PM-8375

Sumikon PM-9250

Sumikon PM-9720

Sumikon PM-9750

Sumikon PM-9830

Sumikon PM-9850

Sumikon PM-AJ

SUMITOMO CHEMICAL CO LTD [E249884] - employing Recognized materials

SUMIKASUPER E4008(c4)(c2)(c3)(j)

SUMIKASUPER E4008L(gt)

WAH HONG INDUSTRIAL CORP [E150608] - employing Recognized materials

WH-8100

WH-8200

WH-9100(G1)(G2)

Tubing and Sleeving

tubing and sleeving are optional for this system

Designation	comments
-------------	----------

CHANGYUAN ELECTRONICS GROUP CO LTD [E180908] - Recognized Component

CB-HFT, CB-HFT(XY), CYG-MT

CB-TT-L

CB-TT-S

CB-TT-T

CHERN-FWUH ENTERPRISE CO LTD [E151045] - Recognized Component

FSG-2

DONG GUAN NAN DIAN INSULATION MATERIALS CO LTD [E350651] - Recognized Component

ND-LL
ND-SS
ND-TT

DONGGUAN LING FREE HARDWARE PLASTICS PRODUCT CO LTD [E352366] - Recognized Component

LING FREE PTFE TUBE

DONGGUAN SALIPT CO LTD [E209436] - Recognized Component

SALIPT S-901-300
SALIPT S-901-600

Grand Position International Co Ltd

ST-HS
ST-SR
ST-TL
ST-TS
ST-TT

GREAT HOLDING INDUSTRIAL CO LTD [E156256] - Recognized Component

TFL
TFS
TFT

HUAPENG (SUZHOU) HEAT-SHRINKABLE MATERIALS CO LTD [E473382] - Recognized Component

H-PTFE

NIKKAN INDUSTRIES CO LTD [E55258] - Recognized Component

S-693F-1
S-693V F-1

SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD [E203950] - Recognized Component

RSFR-H
WF

Shenzhen Zhongdianchenguang Electronic Co Ltd [E469628] - Recognized Component

CG-L
CG-S
CG-T

SIN TIONG WAH ELECTRIC PRODUCTS (SHENZHEN) CO LTD [E153304] - Recognized Component

FSG-2
FSG-3

Tie Cords

tie cords are optional for this system

Designation

comments

Asia Insulation Materials Inc

PGF
Self-locking-PA

Changzhou Wellyun Electric Equipment Co Ltd

WPS

Various Manufacturers

Fiberglass, untreated

Potting Compounds

potting compounds are optional for this system

Designation

comments

CHENGDU GUIBAO SCIENCE & TECHNOLOGY CO LTD [E317561] - employing Recognized materials

GUIBAO 4926
GUIBAO 4926Z

DONG GUAN SHI PAI HUA CHUANG MATERIAL FTY [E304477] - employing Recognized materials

808A/B, H907 @@

DONGGUAN CITY HENG ERLANG INDUSTRIAL CO LTD

EP3189
EP3189-7
G657-3

Dongguan Eatto Electronic Material Co LTD

4400A-1/3300B-1

DONGGUAN EATTO ELECTRONIC MATERIAL CO LTD [E218090] - employing Recognized materials

3300A-1/3300B-1
E-500 (XX)

Dongguan Huachuang Insulation Materials Co Ltd

H907-H##

Guangzhou Huitian New Material Co Ltd [E306078] - employing Recognized materials

5297
5299#

SHENZHEN SISUN SILICONE TECHNOLOGY CO LTD [E248811] - employing Recognized materials

XS1110, XS1119

Zhengzhou Zhongyuan Silande High Technology Co., Ltd. [E342437] - employing Recognized materials

MF211
MF211G

Varnishes

varnishes are optional for this system

Designation

comments

ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC [E75225] - Recognized Component

468-2 (d), 468-2FC (d), 468-2-7-xxF (d), 468-2-7FC-xxF (d)

John C Dolph Co [E317427] - Recognized Component

BC-346A, BC-346-A, BC-346B, BC-346-E, BB-348, BB-346-HF, BC-346HF, BG-346A, BB-346-A, BB-346/A, BC-370

Overcoat Varnishes

(may only be used after impregnation with any varnish in this table) overcoat varnishes are optional for this system

Designation

comments

Asia Insulation Mateirals (Shanghai) Co.,Ltd
AIM-710

© 2019 UL LLC