

YOUNG CHANG SILICONE CO LIMITED

Room 803, Chevalier House, 45-51 Chatham Road South, Tsim Sha Tsui, Kowloon HK

System Component
STW-F-xx, STW-F-SB-xxSystem Designation
YCI-155System Class
155(F)

Report Date: 2021-10-28

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alternate constructions: [Table III](#) ▼**Construction Details (Table III)**

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 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 minimum.

Note: Note: Insulated winding wires designated STW-F-xx, STW-F-SB-xx are suitable for use in this insulation system without additional ground or interwinding insulation

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

YOUNG CHANG SILICONE CO LIMITED [E242198] - Recognized Component
STW-F-xx, STW-F-SB-xx 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

| <u>ANSI Type</u> | <u>Temp(°C)</u> | <u>Basecoat(Topcoat)</u> |
|------------------|-----------------|---|
| MW 30 | or 180°C | Polyester-amide-imide |
| MW 35 | or 200°C | Polyester-amide-imide (Polyamide-imide) |
| MW 36 | or 200°C | Polyester-amide-imide (Polyamide-imide) |
| MW 37 | or 220°C | Polyester (Polyamide-imide) |
| MW 38 | or 220°C | Polyester (Polyamide-imide) |
| MW 73 | or 200°C | Polyester-amide-imide (Polyamide-imide) |
| MW 74 | or 200°C | Polyester-amide-imide |
| MW 76 | or 180°C | Polyester-amide-imide (Polyamide) |

Ground and Interwinding Insulations

| <u>Designation</u> | <u>mils(mm)</u> | <u>comments</u> |
|--|-----------------|-----------------|
| <u>CELANESE INTERNATIONAL CORP [E344082] - Recognized Component</u> ZENITE 7130 | 11.8 (0.3) | |
| <u>CELANESE INTERNATIONAL CORP [E41938] - Recognized Component</u> Rynite FR530(l)(+)(f1), FR530L(l)(+)(f1) | 15 (0.38) | |
| Zytel HTNFR52G30LX | 15 (0.38) | |
| Zytel HTNFR52G30NH(r6) | 15 (0.38) | |
| <u>DuPont Specialty Products USA LLC [E39505] - Recognized Component</u> Kapton® 100H, 100HN, 100HN-S, 100H-ZT, 100HN-ZT, 100FPC-ZT, 100TAB-ZT, 100PST, 100HA, 100TN, 100V, 100VN, 100FPC, 100FPC-A, 100HPP-ST | 1 (0.03) | |
| <u>E. I. Dupont de Nemours & Co.</u> Kapton CR | 1 (0.03) | |
| Kapton HN | 1 (0.03) | |
| <u>P. LEO & CO LTD [E126174] - Recognized Component</u> 1K063 | 1 [layers] | |
| 1K063CR | 1 [layers] | |
| 1K1CR | 1 [layers] | |
| 1K63A *** this product is no longer Recognized *** | 1 [layers] | |
| 1K7170 | 1 [layers] | |
| 1K7177 *** this product is no longer Recognized *** | 1 [layers] | |
| 1K7178 | 1 [layers] | |
| 1K7200 | 1 [layers] | |
| 1K7220 | 1 [layers] | |
| 1KPST | 1 [layers] | |
| 1PEN2 | 1 [layers] | |
| 1PEN3 | 1 [layers] | |
| 1PN2R | 1 [layers] | |
| 1PS25 | 1 [layers] | |
| <u>P. Leo</u> 1K717 | 1 [layers] | |
| <u>SUMITOMO BAKELITE CO LTD [E41429] - Recognized Component</u> SUMIKON PM-9630 | 11.8 (0.3) | |
| SUMIKON PM-9820, PM-9825 | 11.8 (0.3) | |
| <u>SUMITOMO CHEMICAL CO LTD [E249884] - Recognized Component</u> SUMIKASUPER E4008(c4)(c2)(c3)(j)(f2) | | |
| <u>TOYOBO FILM SOLUTIONS LIMITED [E206562] - Recognized Component</u> Teonex Film Q(l)(m), NQ(l)(m), K(l)(m) *** this product is no longer Recognized *** | 1 (0.03) | |

Lead Wires

lead wires are optional for this system

| <u>Temp</u> | <u>Insulation</u> |
|-------------|---|
| 125°C | XLPE - crosslinked polyethylene + |
| 150°C | SR - silicone rubber(with or without braid) |
| 150°C | XLPE - crosslinked polyethylene |
| 150°C | Perfluoro-alkyl vinyl ether/Al/PET/EVA |

200°C SR - silicone rubber(with or without braid)
200°C Perfluoro-alkyl vinyl ether/Al/PET/EVA

+ 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 exclude requirement by a special note at the beginning of this table.

Minor Sheet Materials

(layer, outer, wrap etc.) minor sheet is optional for this system

Designation comments

Dupont -Teijin Films
Teonex Q51

DuPont Specialty Products USA, LLC [E34739] - employing Recognized materials

Nomex® 410
Nomex® 411
Nomex® 414
Nomex® 418, 818, 864LAM
Nomex® 464, 464 LAM

P. Leo
PB-2

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 COMPANY [E17385] - Listed or Recognized Component

10 (a) *** this product is no longer Recognized ***

1350Y-1 (b) *** this product is no longer Recognized ***

1350Y-2 (c)

Super 10 (a)

JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD [E165111] - Listed or Recognized Component

CT* (b)(g)

CT* (c)(g)

PF* (d)(g)

WF* (c)(h)

P Leo & Co (B.C) Ltd

1E035

1E040

1E075

1K7172

1N464

1P130

1P830

1P9FR

1PETS

1PN3R

silicone adhesive, polyimide film

acrylic adhesive, polyester film

acrylic adhesive, polyester film

P LEO & CO LTD [E126174] - Listed or Recognized Component

1A022

1A024

1A025

1A570 *** this product is no longer Recognized ***

1AA02 *** this product is no longer Recognized ***

1AA03 *** this product is no longer Recognized ***

1C821

1C822 *** this product is no longer Recognized ***

1E070 *** this product is no longer Recognized ***

1G006

1G015

1G015A

1G027A

1G08S

1G130 (o)

1G180

1G18S *** this product is no longer Recognized ***

1G200

1G20B

1G20H

1G22A *** this product is no longer Recognized ***

1H818 (m)

1H850 Black (q)

1H850 Natural (o)

1H860 (f)

1H866 (g)

1H86A (o)

1H86R (g)

1K062

1K063

1K063CR

1K06A

1K125

1K1CR

1K220

1K63A *** this product is no longer Recognized ***

1K7170

1K7171A

1K7177 *** this product is no longer Recognized ***

1K7177A

1K7178

1K7200

1KLMN

1KPST

1N008

1N012

1N020

1N030
1N155
1N410
1P133 (f)
1P135 (c) *** this product is no longer Recognized ***
1P316 (a)
1P350 (e)
1P656 (d)
1P700 (b)
1P701 (b)
1P702 (b)
1P703
1P705
1P707 (b)
1P717 (b)
1P756 (h)
1P801
1P802
1P802 (k)
1P802B
1P833 xx (@)
1PEN2
1PEN3
1PFRS *** this product is no longer Recognized ***
1PG880 (o)
1PG887 (o)
1PN820 (o)
1PN828 (o)
1PPSS
1PS25
1PS2A
1PS2S
1TF08
1TT02

Core tubes and Bobbins

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

| Designation | comments |
|---|----------|
| <u>CELANESE INTERNATIONAL CORP [E41938] - employing Recognized materials</u> Rynite 530 (f1) (+), 530L (f1) (+) Zytel 70G30HSL, 70G30HSLR Zytel 70G30L Zytel 70G33HS1L(+) Zytel 70G33L(+) Zytel FR50(+)(f1) | |
| <u>CHANG CHUN PLASTICS CO LTD [E59481] - employing Recognized materials</u> LONGLITE T375J(G5)(G6) | |
| <u>Various Manufacturers</u> Recognized Component (QMTS2), ANSI Grade FR-4, Epoxy Resin Coated Copper Foil, | |

Tubing and Sleeving

tubing and sleeving are optional for this system

| Designation | comments |
|--|----------|
| <u>P LEO & CO LTD [E176865] - Recognized Component</u> 2S1yy-xx.x (a) 2T-TFL-xx.x (a) | |
| <u>P LEO & CO LTD [E195829] - Recognized Component</u> 2R-SG# *** this product is no longer Recognized *** 2R-SG-1# *** this product is no longer Recognized *** | |
| <u>P. Leo & Co Ltd</u> 2R300 | |
| <u>SUMITOMO ELECTRIC FINE POLYMER INC [E48762] - Recognized Component</u> 811 or Sumitube F2 *** this product is no longer Recognized *** SUMITUBE F32 | |

Potting Compounds

potting compounds are optional for this system

| Designation | comments |
|--|----------|
| <u>Dow Corning</u> SE9188 | |
| <u>ELANTAS PDG, Inc. [E100866] - employing Recognized materials</u> ELAN-Cast® E 471-5LL, E 471-5LL-HV, ELAN-Cast E 700 / C 700 | |
| <u>SHIN-ETSU CHEMICAL CO LTD [E48923] - employing Recognized materials</u> KE-402(s) *** materials are no longer Recognized *** | |

Varnishes

varnishes are optional for this system

| Designation | comments |
|--|----------|
| <u>Resonac Corporation [E72979] - Recognized Component</u> WP-2952, WP-2952F-5 WP-2952F-2G, WP-2952F-2G(Y), WP-2952F-2G(YL), WP-2952F-2G(FC), WP-2952F-2G(H), WP-2952F-2G(K) | |