

JOHN C DOLPH CO

320 NEW RD PO BOX 267 MONMOUTH JUNCTION NJ 08852

System Component
PDR-1933, BC-356, BC-365, -LTC, -LO, CC-1305, CC-1305/503D, BC-346A, BC-346B, BC-346AN, BC-346-E, CC-1105, CC-1105HTC, CC-1156, CC-1155, BC-359, BC-359MS, BB-353, PDR-1839, PDR-1936, PDR-1815, PDR-1711, CC-1105-OPT, CC-1105-OPT/HTC, BB-346-HF, CC-1106, BB-348, CC-1305-HTC, CC-1105-BC, CC-1103, CC-1305-HTC-FC

System Designation
DV-155J

System Temp(Class)
155(F)

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Construction Details (Table VI)

alternate constructions VI 6

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 indicated below are minimum.

- Winding Wire**
- Recognized Component - Magnet wire (OBMW2), single build or greater, round or rectangular listed below or
 - Recognized Component - Single and Multi-Layer Insulated Winding Wire (OBJT2) listed below or
 - 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)

- MW 30 or 180C Polyester-amide-imide
- MW 35 or 200C Polyester-amide-imide (Polyamide-imide)
- MW 73 or 200C Polyester-amide-imide (Polyamide-imide)
- MW 74 or 200C Polyester-amide-imide
- MW 76 or 180C Polyester-amide-imide (Polyamide)
- MW 79 or 155C Polyurethane
- MW 80 or 155C Polyurethane (Polyamide)

Ground & Interwinding Insulations

Designation (no.)	mils(mm)	comments
3M Innovative Paper Technologies TufQuin 110	5 (0.13)	

TufQuin 120	5 (0.13)	
TufQuin TF, TFT, FTF	5 (0.13)	
Coveme		
dy Flex SDF125	5-5-5	
dy Flex SF190	7.5-7.5	
dy Term N2D190	2-7.5-2	
dy Term N2S190	2-7.5	
dy Term N3D100	3-4-3	
E. I. Dupont de Nemours & Co.		
Mylar	3 (0.08)	
Nomex 410	3 (0.08)	aramid insulating paper
Nomex 411	7 (0.18)	aramid insulating paper
Nomex 414	3 (0.08)	aramid insulating paper
Nomex 416	3 (0.08)	aramid insulating paper
Nomex 418	3 (0.08)	aramid insulating paper
Rynite FR530	15 (0.38)	polyethylene terephthalate (PET)
Rynite FR530L	15 (0.38)	polyethylene terephthalate (PET)
Fibertek		
DMD	3-3-3	
NMN 416	3-3-3	
NMN 464	2-2-2	
Polifibra SpA		
Polimex NM2S	2-7.5-2	
Polimex NMN-2D	2-5-2	made using nomex 410, 414, or 418
Thermef D75	2-3-2	
Synflex		
DMD	5-5-5	
NMN	5-12.5-5	

Lead Wires (optional)

150 XLPE - chemically crosslinked polyethylene

Minor Sheet Insulations

(optional) layer, outer, wrap etc.

Any sheet insulation or tape described in this table with no minimum thickness requirement.

Designation (no.)	comments
3M Innovative Paper Technologies	
CeQuin 3000	
CeQuin 30F, 30F30, F30F	
CeQuin 30G, 30G30, G30G	
CeQuin 500	
CeQuin I	

CeQuin IF, IFI, FIF
CeQuin IG, IGI, GIG
CeQuin II
CeQuin III
CeQuin IIIF, IIIFIII, FIIIF
CeQuin IIIG, IIIGIII, GIIIG
CeQuin V
CeQuin VF, VFV, FVF
CeQuin VG, VGV, GVG
CeQuinbord 3000
CeQuinbord CGA
DMD180

Arlon (Chase Foster, Keene)

Astrotherm 180 XM
Estermat DMD100
FCMS

friction coated mylar

Coveme

dy Flex SDF125
dy Flex SF190
dy Term N2D190
dy Term N2S190
dy Term N3D100

Panatex

Heat Shrink polyester

Polifibra SpA

NHMS

Various Manufacturers

Polyethylene terephthalate film (PET)

Recognized Component Plastics (QMFZ2)

Von Roll USA Inc. (Acme)

Acuflex CMC
Acuflex DMD100
Acuflex NMN
Acuflex NMNE

Von Roll USA Inc. (Bedford Materials)

5JF44
Memco 100 DMD
Pyrolam 100X

varnish glass cloth

Cores, Tubes

Bobbins

(optional) for mechanical support only

Designation (no.)

comments

E. I. Dupont de Nemours & Co.

Rynite 935

Rynite FR515
Rynite FR530
Rynite FR530L
Rynite FR945

Eastman Kodak

EKTAR CG 007 PCT
EKTAR EG 001 PET
EKTAR EG 003 PET
EKTAR EG 045 PET

GE Plastics

Valox 325-1001
Valox 466-1001
Valox 751-1001

Paramount Tube

CeQuin
Dielectric Kraft
Kraft
Nomex
Phenolic Kraft

Precision Paper Tube Co.

Dielectric Kraft
Heat-Shrink Mylar
Mylar
Polyester Glass
Pyroform 310
Resinite
Resinite FR9120
Thin Wall P-100

Tapes (optional)

Designation (no.)	comments
3M (Minnesota Mining & Mfg Co)	
1	polyester film/epoxy resin composite
10	thermosetting rubber, polyester nonwoven/epoxy resin composite
11	thermosetting rubber adhesive, black acetate cloth
1169	thermosetting rubber adhesive, polyester film
1174	thermosetting rubber adhesive, polyester film/mat
1205	acrylic adhesive, polyimide film
1291	acrylic adhesive, polyester film
1298	acrylic adhesive, polyester film
1312	polyester filament reinforced polyester film
1318	acrylic adhesive, polyester film
1339	acrylic adhesive, polyester film

1350	polyester film
20+	polyester nonwoven/epoxy resin composite
27	thermosetting rubber adhesive, glass cloth
28	thermosetting rubber adhesive, acetate cloth
3	thermosetting rubber adhesive, flatback paper
38	thermosetting rubber adhesive, crepe paper
44	thermosetting rubber adhesive, web reinforced polyester film
46	thermosetting rubber adhesive, web reinforced polyester film
5	acrylic adhesive, polyester film
54	thermosetting rubber adhesive, polyester film
55	thermosetting rubber adhesive, polyester film/mat
56	thermosetting rubber adhesive, polyester film
57	thermosetting rubber adhesive, polyester film
58	thermosetting rubber adhesive, polyester film
60	thermosetting silicone adhesive, PTFE film
61	thermosetting acrylic adhesive, PTFE film
62	thermosetting acrylic oil compatible adhesive, PTFE film
63	acrylic adhesive, PTFE film
69	thermosetting silicone adhesive, glass cloth
74	thermosetting rubber adhesive, polyester film
75	thermosetting rubber adhesive, double coated polyester film
79	acrylic adhesive, glass cloth
90	glass cloth
92	thermosetting silicone adhesive, polyimide film
MR94	polyester film/non-woven composite
MR94B	thermosetting rubber adhesive, reinforced polyester film
MR95	thermosetting rubber adhesive, polyester film/mat
MR96	thermosetting rubber adhesive, reinforced polyester film
MR98	
Coveme S P A	
DyTape 172	
DyTape 193	glass cloth
Filmcutter	
NMN 522307	
NX 53557	
H-old S R L	
GL.94	glass cloth
GL.95	glass cloth
GL.96	glass cloth
GX.50	
H.20	polyimide
P.31	PET
PR.25	

PR.30	composite PET film
PS.25	
PS.30	composite PET film
PT.25	composite PET film
PX.50	composite PET film
X.50	
Ideal Tape Co Inc	
700	thermosetting rubber adhesive, polyester film glass filament
701	thermosetting rubber adhesive, polyester film glass filament
702	thermosetting rubber adhesive, polyester film glass filament
720	thermosetting rubber adhesive, woven polyester cloth
721	thermosetting rubber adhesive, cotton cloth
724	thermosetting rubber adhesive, woven polyester cloth
725	thermosetting rubber adhesive, polyester knit
730	thermosetting rubber adhesive, glass cloth
7300	thermosetting silicone adhesive, glass cloth
Intertape Polymer Group (Tesa, Tuck, Spinnaker)	
16	acrylic adhesive, polyester film glass reinforced
17	thermosetting rubber adhesive, film/glass filament reinforced
21	silicone adhesive, polyester film
23	thermosetting silicone adhesive, polyimide film
24	thermosetting silicone adhesive, polyimide film
39	polyester film laminated to rope fiber
395	thermosetting rubber adhesive, polyester film laminated to rope fiber
40	thermosetting rubber adhesive, polyester film/nonwoven mat
41	thermosetting rubber adhesive, polyester film laminated to rope fiber
415	thermosetting rubber adhesive, polyester film laminated to rope fiber
415 SA	polyester film laminated to rope fiber
4194	
4238	polyester film glass reinforced
4384	
4385	
4386	
4387	
4426-00	polyester film laminated to rope fiber
4426-04	polyester film laminated to rope fiber
4428	polyimide film
4429	polyimide film
4577	
4616-00	glass cloth
4616-04	glass cloth
4617	glass cloth
4618	glass cloth

4627	
49	thermosetting rubber adhesive, polyester film
50	thermosetting rubber adhesive, polyester film
51	thermosetting rubber adhesive, glass cloth
51560	polyester film
51578	polyester film laminated to rope fiber
51579	polyimide film
51580-00	polyester film laminated to polyester nonwoven matte
51586-00	polyester film
51587	polyester film glass reinforced
51588	polyester film
51589	
51594	polyester film
51595	polyester film laminated to polyester nonwoven matte
51596	polyester film laminated to polyester nonwoven matte
51599	polyester film glass reinforced
56	glass cloth
58	rubber adhesive, glass cloth
59	thermosetting silicone adhesive, glass cloth
6106	thermosetting rubber adhesive, polyester film/non-woven mat
6161	thermosetting acrylic adhesive, polyimide film
64	oil compatible thermosetting acrylic adhesive, polyester film
Nitto Denko Corp	
315	rubber adhesive, polyester film
3161	polyester
3161F	polyester
350A	acrylic adhesive, epoxy impregnated polyester non-woven
354	epoxy resin polyester nonwoven backing, acrylic adhesive
630F	
Permacel	
P-201	cotton cloth
P-21	thermosetting rubber adhesive, glass cloth
P-213	thermosetting acrylic adhesive, glass cloth
P-221	thermosetting silicone adhesive, polyimide film
P-222	thermosetting silicone adhesive, polyimide film
P-223	thermosetting silicone adhesive, polyimide film
P-224	thermosetting silicone adhesive, polyimide film
P-232	thermosetting silicone adhesive, polyester film
P-234	
P-235	thermosetting rubber adhesive, polyester film/paper
P-236	thermosetting rubber adhesive, polyester film/paper
P-242	acetate taffeta cloth
P-245	thermosetting rubber adhesive, polyester film/non-woven mat

P-246	thermosetting rubber adhesive, glass cloth
P-247	oil resistant polyester film glass filament
P-248	thermosetting rubber adhesive, polyester film/paper
P-252	semi-cured rubber adhesive, polyester film
P-253	semi-cured rubber adhesive, polyester film
P-254	semi-cured rubber adhesive, polyester film
P-255	semi-cured rubber adhesive, polyester film
P-256	semi-cured rubber adhesive, polyester film
P-257	thermosetting rubber adhesive, polyester film
P-258	semi-cured rubber adhesive, printable polyester film
P-259	semi-cured rubber adhesive, printable polyester film
P-262	flame retardant thermosetting acrylic adhesive, aramid paper
P-277	thermosetting rubber adhesive, paper (creped kraft)
P-278	
P-280	thermosetting acrylic adhesive, printable polyester film
P-281	thermosetting acrylic adhesive, printable polyester film
P-286	thermosetting acrylic adhesive, polyester film
P-286HD	thermosetting acrylic adhesive, polyester film
P-421	thermosetting silicone adhesive, PTFE film
P-422	thermosetting silicone adhesive, PTFE film
P-424	thermosetting silicone adhesive, PTFE film
P-427	thermosetting silicone adhesive, PTFE film
P-430	thermosetting acrylic adhesive, PTFE film

Saint-Gobain Performance Plastics Corp (CHR, Furon)

A2005	
A2007	
A2008	
A2102	
A2205	
A2207	
EX641	
G540	silicone adhesive, fiberglass
G569	acrylic adhesive, fiberglass cloth
HM350	
HM352	
K100	double-sided silicone adhesive, polyimide film
K102	acrylic adhesive, polyimide film
K104	silicone adhesive, polyimide film
K250	silicone adhesive, polyimide film flame retardant
M54	thermosetting rubber adhesive, polyester film
M56	thermosetting rubber adhesive, polyester film
M57	thermosetting rubber adhesive, polyester film
M60	acrylic adhesive, transparent polyester film

M69	acrylic adhesive, transparent polyester film
M705	acrylic adhesive, polyester film
M706	acrylic adhesive, polyester film
M765	acrylic adhesive, polyester film
M97	acrylic adhesive, printable polyester film
M99	acrylic adhesive, polyester film
T	

Technoconvert
Tec Roll 19F

Spacers and Wedges

(optional)

Any material described in this table with no thickness requirement.

Designation (no.)	comments
Glastic Corp.	
TSF	polyester/glass
UTR	
UTS	
Haysite	
EHC	glass reinforced thermosetting polyester
Resolite	
Supersil Polyglas	
Topglass	
Triglass	

Sleevings (optional)

Designation (no.)	comments
Delfingen US, Inc. (Sofanou)	
Hygrade Polytube 463	
Hygrade SR 398	
Hygrade Thermoflex 500	
Delfingen US, Inc. (Sofanou, Jenisco)	
AC 432	
AW 751	
WV 651	
Federal Mogul (Bently Harris)	
1062	silicone rubber coated fiberglass
Ben Har 1151-FR	
Ben Har 1151-XL-200	silicone rubber coated fiberglass
Ben Har 1151-XL-240	
Ben Har Ex-Flex 1500	
Ben Har ST-1250	

Hilec (Brand Rex, Voltube)

Hilec 417 F
 Hilec 547 R
 Hilec 710 C
 Turbo 117F

Inecsa

Texapol F

Miotti

Miacril

Relats

Revitex silicone rubber

Sigi

13F3
 15C fiberglass-silicone

Suflex (Essex)

Suflex Flexicone 200
 Suflex Silicone Rubber
 Suflex Vinylglas

Varflex

Varglas Non-Fray Type H
 Varglas Non-Fray Type HO
 Varglas Silicone Resin 500
 Varglas Silicone Rubber ES 4400

Tie Cords (optional)

Designation (no.) comments

Panatex

Polyester 1000/5B

Varflex

48 silicone coated fiberglass

Varnishes**Recognized Component - Varnishes (OBOR2)**

Designation (no.) comments

John C. Dolph Co

BB-346-HF
 BB-348
 BB-353
 BC-346A, BC-346B, BC-346AN, BC-346-E
 BC-356
 BC-359, BC-359MS
 BC-365, -LTC, -LO
 CC-1103
 CC-1105, CC-1105HTC

CC-1105-BC
CC-1105-OPT, CC-1105-OPT/HTC
CC-1106
CC-1155
CC-1156
CC-1305, CC-1305/503D
CC-1305-HTC
CC-1305-HTC-FC
PDR-1711
PDR-1815
PDR-1839
PDR-1933
PDR-1936
