

WOSS 501/6

British Railways Board

Director of Mechanical and Electrical Engineering

Register of Approved Insulating Materials

**For Electrical Machines Fitted
to Traction and Rolling Stock**

WORKSHOP OVERHAUL STANDARD SPECIFICATION



REVISION RECORD

This Specification will be updated when necessary by the issue of amended pages accompanied by revision letters. The amended or additional part of re-issued pages will be marked with a vertical black line.

If you consider that an amendment is necessary, complete BR Form 14298 and pass it to the local BRB Resident Engineer or Area Quality Engineer. Submission of a form does not authorise the proposed amendments.

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This Specification applies to equipment fitted to the vehicles indicated 'X' below, but it is only to be implemented when authorised by an appropriate maintenance/overhaul document.

LOCOMOTIVES

03	X
08	X
09	X
20	X
25	X
26	X
27	X
31	X
33	X
37	X
43	X
45	X
47	X
50	X
56	X
58	X

73	X
81	X
85	X
86	X
87	X
88	X
89	X
91	X

DMU's

101	X
104	X
107	X
108	X
110	X
111	X
114	X
115	X
116	X
117	X
118	X
119	X
121	X
122	X
128	X
140	X
141	X
142	X
143	X
150	X
151	X

EMU's

302	X
303	X
304	X
305	X
307	X
308	X
309	X
310	X
311	X
312	X
313	X
314	X
315	X
317	X
318	X
319	X
504	X
507	X
508	X

411	X
412	X
413	X
414	X
415	X
416	X
419	X
421	X
422	X
427	X
432	X
455	X

485	X
486	X
487	X
488	X
489	X

DEMU's

201	X
202	X
203	X
204	X
205	X
207	X

COACHING STOCK

Mk 1	X
Mk 2, 2a-c	X
Mk 2d-e	X
Mk 2f	X
Mk 2 DBSO	X
Mk 3a	X
Mk 3b	X
Mk 3 (HST)	X
Mk 3 SLE and SLEP	X
Non Passenger	X

REGISTER OF INSULATING MATERIALS APPROVED FOR USE ON ELECTRICAL
MACHINES FOR TRACTION AND ROLLING STOCK

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BR Specification TEE/M/83/P/140 Specification for insulation materials used in the repair of electrical machines

INTRODUCTION

The following materials are approved for use when repairing and rewinding electrical machines for use on BR traction and rolling stock.

NOTE

It is the responsibility of the user to ensure that:-

- a) the materials supplied meet the requirements of the relevant manufacturing or purchasing specification
- b) the materials are not used in a manner which will expose any person to health and safety hazards.
- c) the materials are stored and/or maintained in an acceptable condition in accordance with the supplier's recommendations.

SECTION 1.1
 1.1.1 KAPTON FILM NON ADHESIVE
 TO BR SPEC TEE/M/83/P/140 APPENDIX A1.1.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Astons	Kapton 200H	Upto 36" Wide x 0.002"	Inf	
	Kapton 100H	Upto 36" Wide x 0.001"	Inf	
Kensulat	Kapton 200H	Upto 36" Wide x 0.002"	Inf	
	Kapton 100H	Upto 36" Wide x 0.001"	Inf	
HD Symons	Kapton 200H	Upto 36" Wide x 0.002"	Inf	
	Kapton 100H	Upto 36" Wide x 0.001"	Inf	

Limited approval also given for the following. Catalogue nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat Nos	Size	Remarks
55/20583	1/2" wide x 0.002" thick	
55/20582	1/2" wide x 0.001" thick	

SECTION 1.1
 1.1.2 POLYESTER FILM
 BR SPEC TEE/M/83/P/140 APPENDIX A1.1.2

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Anglo American	Hostaphan Grade WN	up to 36"x50m x 0.005" up to 36"x50m x 0.014"	Inf	
H D Symons	Melinex	as above	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/14254	0.002"x48"x50m	
55/20601	0.001"x1"x50m	

SECTION 1.1
 1.1.3 POLYESTER FILM (RELEASE TREATED)
 BR SPEC TEE/M/83/P/140 APPENDIX A1.1.3

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Anglo-American	Hostaphan Grade RNTT	1 m x 400 m x 0.05 mm	Inf	
Jones Stroud	Hyperstrip PF1	0.025 mm thick width 12 mm to 900 mm	Inf	
	Hyperstrip PF2	0.05 mm thick width 12 mm to 900 mm	Inf	
H D Symons	Release	0.025 mm thick	Inf	
	Treated	width 12 mm to 900 mm		
	Melinex	0.05 mm thick width 12 mm to 900 mm		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12626	0.001" x 36" x 50m	
55/14255	0.002"x48"x50m	
55/20276	0.001" x 3/4" x 100m	
55/20603	0.002" x 1" x 100m	
55/121260	0.025mm x 25mm x 100m	

SECTION 1.2.
 1.2.1 UNCALENDERED NOMEX UNTREATED
 BR SPEC TEE/M/83/P/140 APPENDIX A1.2.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Nomex 411	Upto 900 mm wide x 0.13 mm	Inf	
H D Symons	Nomex 411	Upto 900 mm wide x 0.13 mm Upto 900 mm wide x 0.25 mm		
Kensulat	Nomex 411	Upto 900 mm wide x 0.13 mm		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/20746	0.005" x 9 mm x 25 yds	
55/20745	0.010" x 9 mm x 25 yds	
55/16869	0.005" x 0.4375" x 25m	
55/16867	0.005" x 0.3125" x 25m	
55/16868	0.005" x 0.36" x 25m	

SECTION 1.2
 1.2.2 CALENDERED NOMEX UNTREATED
 BR SPEC TEE/M/83/P/140 APPENDIX A1.2.2

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Nomex 410	Thickness 0.05 mm to 0.76 mm, width upto 914 mm Roll length dependant on thickness eg. 0.13 mm 439 mm long	Inf	
H D Symons	Nomex 410	as above	Inf	
Kensulat	Nomex 410	as above	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/16841	0.003" x 914mm x 50 m	
55/16842	0.005" x 914mm x 50 m	
55/16839	0.010" x 914mm x 50 m	
55/16844	0.015" x 914mm x 50 m	
55/16845	0.020" x 914mm x 50 m	
55/16854	0.36" x 0.005" x 25m	
55/16855	0.3125" x 0.005" x 25m	
55/16856	0.4375" x 0.005" x 25m	

SECTION 1.2.
 1.2.3.1 CALENDERED NOMEX EPOXY TREATED
 BR SPEC TEE/M/83/P/140 APPENDIX A1.2.3.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Hyperfil NX	as Calendered Nomex Untreated but only up to 900mm wide	6 month @ 20°C 12 months @ 5°C	
H D Symons	Nomex Coated with SP 1810	as above	12 months @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/16846	0.18mm x 900mm x 50 m	

SECTION 1.3.
 1.3.1 POLYESTER FELT - UNTREATED
 BR SPEC TEE/M/83/P/140 APPENDIX A1.3.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Polyester Felt			
Bondina Industrial	Polyester Felt 6120-163	Width up to 1630 mm Thickness 4 mm x 50 m long		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12761	2-2.5 mm thick x 800 mm x 25 m	
55/12621	2-2.5 mm thick x 1m x 50 m	

SECTION 1.3.
 1.3.2 EPOXY IMPREGNATED POLYESTER FELT
 BR SPEC TEE/M/83/P/140 APPENDIX A1.3.2

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Hyperfil SF	Widths upto 1 m x 2 to 2.5 mm thick	3 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/18835	2.25 mm x 50mm x 15 m nominal	
55/18836	2.25 mm x 800mm x 15 m nominal	

SECTION 1.4.
 1.4.1 WOVEN GLASS TAPE
 TO BR SPEC TEE/M/83/P/140 APPENDIX A1.4.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidatape C	0.09, 0.13, 0.23 mm thick, 13, 19, 25, 30 and 50 mm wide 50 m long rolls	Infinite	
Lilleys	order by description	as above		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121070	0.09 x 10 mm	
55/121083	0.09 x 13 mm	
55/121098	0.09 x 20 mm	
55/121113	0.09 x 25 mm	
55/121100	0.13 x 20 mm	
55/121120	0.13 x 25 mm	
55/121150	0.13 x 32 mm	
55/121130	0.23 x 25 mm	
55/121175	0.23 x 75 mm	

SECTION 1.4.
 1.4.2 WOVEN POLYESTER TAPE
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidatape P	Thickness 0.13 and 0.23 mm widths 13, 19 25, 30, 50 mm 50 m rolls	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121192	0.13mm x 52mm x 50m	

SECTION 1.5.
 1.5.1 WOVEN GLASS CLOTH UNTREATED
 BR SPEC TEE/M/83/P/140 APPENDIX A1.5.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Fothergill Engineered Fabrics		36" wide rolls		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/11461	0.005" x 36" wide	
55/11465	0.010" x 36" wide	
55/11561	0.005" x 3" wide	
55/11562	0.005" x 6" wide	
55/117027	0.23mm x 100mm x 50 m	
55/117028	0.23mm x 125mm x 50 m	
55/117029	0.23mm x 150mm x 50 m	
55/117031	0.23mm x 200mm x 50 m	

SECTION 1.5.

1.5.2

WOVEN CLOTH TREATED WITH ISOPHTHALATE VARNISH
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
H D Symons	SP 1729			

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12608	0.005" x 36" wide	

SECTION 1.6.
 1.6.2 HIGH TEMPERATURE ADHESIVE TAPE-GLASS BACKED
 TO BR SPEC TEE/M/83/P/140 APPENDIX A1.6.2

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
3M's	Scotch No. 79		6 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121055	25 wide x 0.18 mm thick	
55/121040	12 wide x 0.18 mm thick	

SECTION 1.6.3
 1.6.3 GENERAL PURPOSE UNTREATED GLASS BACKED ADHESIVE TAPE
 TO BR SPEC TEE/M/83/P/140 APPENDIX A1.6.3

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Ideal Tape	730	10 to 50 mm wide 55 m long	6 months	
3M's	Scotch No. 27		4 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121042	6 mm wide x 0.8 mm x 55 m	

SECTION 1.6.

1.6.4 GENERAL PURPOSE WATERPROOF GLASS BACKED ADHESIVE TAPE
BR SPEC TEE/M/83/P/140 APPENDIX A1.6.4

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Rotunda	3107	12-75 mm Wide x 50 m	2 years	

Limited Approval also given for the following

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
	25 mm x 0.8 mm x 50 m	

SECTION 1.6.
 1.6.5 POLYESTER FILM ADHESIVE TAPE
 TO BR SPEC TEE/M/83/P/140 APPENDIX A1.6.5

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
3M's	Scotch No. 56	from 6 mm wide x 66 m long	12 months	
3M's	Scotch No 57	as above	12 months	
Ideal Tape	7007	10 to 50 mm wide x 66 m long	12 months	
DRG Sellotape	1607	6 to 50 mm wide x 66 m long	12 months	
Nitto	315(yellow 0.025mm)	6 to 25 mm wide x 66 m	12 months	

Limited Approval also given for the following

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/21080	0.5" wide x 0.0025"	
55/21086	1.0" wide x 0.0025"	
55/121210	25mm x 0.025mm x 66m	

SECTION 1.6.
 1.6.6 KAPTON FILM SELF ADHESIVE
 BR SPEC TEE/M/83/P/140 APPENDIX A1.6.6

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
3M's	Scotch No. 92		12 months	
Kensulat	Permacel P224			

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/21160	20 mm wide x 0.0025" x 33 m	
55/21150	1/2" wide x 0.0025" x 33 m	

SECTION 1.7.
 1.7.1 RESIN IMPREGNATED SEALING TAPE/FABRIC
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Hyperseal XFTM/BR	0.3 mm thick up to 1m wide 50 m rolls	3 months @ 20°C 6 months @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121035	25 mm x 0.19 mm x 50 mm	

SECTION 1.7.
 1.7.2 SELF AMALGAMATING SYNTHETIC RUBBER TAPE
 TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Rotunda	2501	19, 25, 50 & 72 mm wide x 10 m x 0.5 mm thick	12 months	
3M's	Scotch No. 23	0.75, 1.0, 1.5 & 2.0" wide 30 ft long x 0.030" thick	12 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121300	25 mm x 0.5 mm x 10 m	

SECTION 1.8.
 1.8.1 UNIDIRECTIONAL GLASS BANDING TAPE (Joint Free)
 TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
ISM	Poly Glass H200 Joint Free	10 x 750 x 0.25 mm	16 months @ 10°C	
		15 x 500 x 0.25 mm	8 months @ 20°C	
		20 x 1800 x 0.25 mm		
		25 x 1500 x 0.25 mm		
Jones Stroud	Hyperten 2325M Joint Free	8 to 50 mm wide, length	as above	
		varies according to width		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/23900	20 mm wide (specify length required)	
55/22141	25 mm wide (specify length required)	

SECTION 1.8.
 1.8.2 SOLID GLASS CORD
 TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Croylek	Use description	4mm Dia	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/11812	0.125"dia	
55/11811	0.25"dia	

SECTION 1.8.
 1.8.5
 EDGE RESTRAINT FOR GLASS BANDING
 TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Croylek	tape no 9641 plus description	4mm	Inf	

Limited approval also given for the following. Cat nos below do not apply

P P Payne
 Jones Stroud

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/18780	0.125" x 1.125"	
55/18781	0.25" x 2.625"	
55/19940	1" x 1/8"	
55/19941	3" x 3/16"	
55/19942	3" x 5/16"	

SECTION 1.9.
 1.9.1.1 NOMEX/POLYESTER FILM LAMINATE
 BR SPEC TEE/M/83/P/140 APPENDIX A1.9.1.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Hypertherm F	Widths from 10 to 900 mm Thickness 0.15 to 0.53 mm 50 m long rolls	Inf	
H D Symons	Symax & description and thickness	as above	Inf	
Kensulat	Kensulat F	Up to 0.63 mm thick width up to 914 mm	Inf	
Attwaters	Attamex N & description and thickness	as above	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/2637	0.5mm x 900mm x 50 m	
55/8449	0.15mm x 1 m x 50 m	
55/118521	0.020" x 914mm x 50 m	
55/12636	0.25mm x 1 m x 50 m	
55/12637	0.5mm x 1 m x 50 m	
55/16847	0.4mm x 1 m x 50 m	
55/19855	0.007" x 4"	
55/12633	1.00mm x 900mm x 900mm	
55/12634	1.50mm x 900mm x 900mm	

SECTION 1.9.
 1.9.2 POLYESTER MAT/POLYESTER FILM LAMINATE
 BR SPEC TEE/M/83/P/140 APPENDIX A1.9.2

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Hypertex F	Widths from 10 to 900 mm Thickness 0.15 to 0.45 mm 50 m long rolls	Inf	
HD Symons	Termex SP1735	0.4 mm x 914 mm x 50 m	2 years	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/17924	0.012" x 1 m x 5 m	

SECTION 1.9.
 1.9.3 POLYESTER FILM BACKED ELEPHANTIDE
 TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Anglo-American Vulcanised Fibre	SP51	Upto 0.58 mm thick thick	Inf	
Attwaters	Attaply & Description and thickness	as above	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/19878	0.05mm x 1m x 50m	
55/19879	0.009" x 1m x 50m	
55/19880	0.009" x 1m x 50m	
55/19885	0.023" x 1m x 50m	

SECTION 1.9.

1.9.4 POLYESTER FILM BACKED VULCANISED CELLULOSE FIBRE SHEET
TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
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Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/14206	0.020" x 2" x 50yd	
55/14208	0.020" x 2" x 50yd	
55/14209	0.020" x 6" x 50yd	

SECTION 1.10
1.10.1 MICA PLATE, SLAB AND SPLITTINGS

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Dacier)Ruby)Clear or)Spotted))Various))	Inf	
East London Mica))))))		
Attwaters))))		
H Clarke))		

Limited Approval also given for the following

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
See "SHEET MICA". In 55/ Catalogue (37 entries)		

SECTION 1.10
 1.10.2 GLASS/MICA/GLASS, ISOPHTHALATE BONDED
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Aston Insulation	AP/GMG/10	1 m sq x 0.25, 0.4 mm and 0.63 mm thick	6 months	
East London Mica	Use Description		6 months	
M + 1	PS 3942	0.25 mm x 940 mm x 686 mm	6 months	
M + 1	PS 3954	0.63 mm x 940 mm x 686 mm	6 months	
H Clarke	Use description	As above	6 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/15389	0.010" x 27" x 37"	
55/15392	0.025" x 27" x 37"	
55/12565	0.015" x 27" x 39"	
55/15330	0.015" x 24" x 36"	

SECTION 1.10

1.10.3.1 SILICONE BONDED FLEXIBLE GLASS MICAPAPER SHEET OR TAPE CLASS H
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
ISM	Samicaflex 366.19	12 mm x 100 m x 0.16 mm	*4 months @ 20°C	
		20 mm x 100 m x 0.16 mm	12 months @ 5°C	
		25 mm x 100 m x 0.16 mm		* If material not to be polymerised by hot pressing shelf life Inf

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
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SECTION 1.10
 1.10.3.2 SILICONE BONDED GLASS MICAPAPER SHEET OR TAPE CLASS H
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
ISM	Samicaflex 366.42	10mm to 1m wide x 0.18mm	4 months @ 20°C 8 months @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/18473	0.18mm x 1m x 50m	

SECTION 1.10
 1.10.4 POLYESTER/GLASS/MICA/POLYESTER TAPE
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Poly-Mica PM2	10 to 30 mm wide, 25, 50 or 100 m rolls 0.12 mm thick		

Limited approval also given for the following. Cat nos below do not apply

ISM	Samica Glass	12 mm x 100 m x 0.12 mm	Inf	NOT TO BE USED WITH SOLVENTLESS POLYESTER VARNISH
	Polyester	20 mm x 100 m x 0.12 mm		
	326.03	25 mm x 100 m x 0.12 mm		

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121020	0.13 mm x 25 mm x 50 mm	
55/121015	0.13 mm x 20 mm x 50 mm	
55/121012	0.13 mm x 12.5 mm x 50 mm	

SECTION 1.10
 1.10.5 FLEXIBLE MICA-FOLIUM - GLASS BACKED, SHELLAC BONDED 0.008" THICK
 BR SPEC TEE/M/83/P/140 AND TEE/M/82/R/17

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
East London Mica	BR Spec TEE/M/82/R/17	1 m sq	6 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/15904	0.008" thick	

SECTION 1.10

1.10.6 EPOXY BONDED GLASS BACKED MICA PAPER SHEET OR TAPE CLASS H
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Novabond SX	Widths up to 1 m Thickness from 0.13mm to 0.28 mm 50 m rolls	3 months @ 20°C 6 months @ 5°C	
I S M	Samicatherm 366.35 = 366.34 = 366.33 =	Widths up to 1 m 0.18 mm thick 0.21 mm thick 0.24 mm thick	3 months @ 20°C 6 months @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

Astons	AEX	Widths upto 0.5 m from 0.14 to 0.29mm thick	Contact D of M&EE BRB before ordering
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The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/121060	0.18 mm x 25 mm x 50 m	
55/121071	0.18 mm x 12.5 mm x 50 m	
55/12651	0.18 mm x 1 m x 50 m	
55/12649	0.007" x 36" sq	
55/121090	0.14 mm x 20 mm x 50 m	
55/12647	0.0055" x 1 m x 1 m	
55/14699	0.002-0.003" x 36" sq	

WOSS 501/6

SECTION 1.10

1.10.7 EPOXY BONDED GLASS BACKED MICA PAPER SHEET OR TAPE CLASS F
BR SPEC TEE/M/83/P/140

Note: In addition to the following all materials approved to "Epoxy Bonded Glass Backed Micapaper Class H" may be used.

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Novabond S	Widths upto 1 m thickness from 0.1 m 0.28 mm 50 m rolls	3 month @ 20°C 6 month @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12656	0.007" x 36" sq	
55/16375	0.006" x 36" sq	
55/20998	0.007" x 1" x 50m	
55/12648	0.008" x 36"square	

SECTION 1.10

1.10.8 ISOPHTHALATE BONDED GLASS BACKED MICA PAPER SHEET OR TAPE CLASS F
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Isobond	Widths upto 1 m thickness from 0.1 m 0.28 mm 50 m rolls	3 month @ 20°C 6 month @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12643	0.005-0.006" x 36" sq	
55/12641	0.007" x 1m sq	
55/12646	0.008" x 1m sq	
55/121030	0.005-0.006" x 20mm x 25m	
55/121031	0.005-0.006" x 25mm x 25m	
55/121033	0.005-0.006" x 50mm x 25m	

SECTION 1.10
 1.10.9 FLEXIBLE EPOXY BONDED GLASS BACKED MICA PAPER CLASS F
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Novabond F	Width upto 1 m thickness from 0.1 m to 0.28 mm 50 m rolls	3 months @ 20°C 6 months @ 5°C	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/20985	0.007" x 0.75" x 50m	

SECTION 1.10
 1.10.10 SILICONE BONDED FLEXIBLE MICANITE
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Attwaters	Use Description	0.13 - 3 mm x 900 x 600 mm	1 year	
H Clark	MP 573	as above		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/16198	0.009" thick	
55/16256	0.010" thick	

SECTION 1.10
1.10.11 SHELLAC BONDED MOULDING MICANITE
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
SEE SHEET 2.4.2				

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
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SECTION 1.10
1.10.12 SHELLAC BONDED COMMUTATOR MICANITE
TO BR SPEC TEE/M/83/P/140 AND BS 626

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
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SEE SHEET 2.4.3

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
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SECTION 1.11
 1.11.1.1 UNTREATED GLASS SLEEVING-THIN WALLED-BRAIDED
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Croylec	Textilver TV	1 to 10 mm bore	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/25002	1mm bore	
55/25004	1.5mm bore	
55/25006	2mm bore	
55/25007	3mm bore	
55/25017	4mm bore	
55/25008	5mm bore	
55/25010	6mm bore	
55/25012	8mm bore	
55/25014	10mm bore	
55/25016	12mm bore	

SECTION 1.11
 1.11.1.2 UNTREATED GLASS SLEEVING -KNITTED
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidaflex L124	0.5 mm to 25 mm	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
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SECTION 1.11
 1.11.1.3 UNTREATED GLASS SLEEVING-THICK WALLED-BRAIDED
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidaflex 99X	1 to 10 mm bore	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/25033	1mm bore	
55/25032	1.5mm bore	
55/25031	2mm bore	
55/25030	3mm bore	
55/25029	4mm bore	
55/25028	5mm bore	
55/25027	6mm bore	
55/25025	8mm bore	
55/25026	12mm bore	

SECTION 1.11

1.11.2.1 WOVEN/KNITTED SLEEVING - VARNISH TREATED AND COATED CLASS F
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidaflex 942	1 to 12 mm bore, wall thickness 0.4 mm to 0.8 mm dependant on bore size.	Inf	
	Vidaflex 510	1 to 12 mm bore, wall thickness 0.6 mm		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/25131	10mm bore	black
55/120977	2mm bore	yellow
55/120982	5mm bore	yellow

SECTION 1.11

1.11.2.2 WOVEN/KNITTED SLEEVING - VARNISH TREATED AND COATED CLASS B
BR SPEC TEE/M/83/P/140

Note: In addition to the following all materials approved to "Woven/Knitted sleeving - varnish treated and coated Class F" may be used.

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Croytec	GSV	1 to 25 mm bore	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/19886	3mm bore	yellow
55/19881	1/8" bore	
55/19884	5mm bore	yellow
55/19883	6mm bore	green
55/19887	1/4" bore	
55/19888	5/16" bore	
55/120914	No size given	
55/120917	16mm bore	black

SECTION 1.11

1.11.3 WOVEN/KNITTED SLEEVING SILICONE VARNISH TREATED CLASS H
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidaflex 111	0.5 mm to 12 mm bore wall thickness 0.3 to 0.7 mm dependant on bore size	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

55/25015	3mm bore
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SECTION 1.11

1.11.4 WOVEN/KNITTED SLEEVING SILICONE ELASTOMER TREATED AND COATED CLASS H
BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Jones Stroud	Vidaflex S550	1 mm to 12 mm bore thickness 0.7 mm to 1.2 mm dependant on bore size		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

SECTION 1.12
 1.12.1 PTFE VEE RING EXTENSION PROTECTION RINGS
 BR SPEC TEE/M/83/P/140 AND DRG. NO. L-A1-12093

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Edlan Eleken				
Fluorocarbon				
Norton Performance Plastics				
Polypenco				
Fothergill Polymers				

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
See Drawing No.	L-A1-12093	

SECTION 1.13
 1.13.1 VULCANISED CELLULOSE FIBRE SHEET
 BR SPEC TEE/M/83/P/140 AND BS 2768

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Anglo-American Vulcanised Fibre	Leatheroid XXX	Upto 1/8" thick 77" x 51"	Inf	
Attwaters	Leatheroid	Upto 1/8" thick 80" x 50"		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
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SECTION 1.13
 1.13.2 COMPRESSED CELLULOSE FIBRE SHEET
 BR SPEC TEE/M/83/P/140 AND BS 3255 TYPE D or BS 231 TYPE D

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Anglo-American Vulcanised Fibre	Press Paper Grade AW Calendered	Upto 0.8 mm thick 820 x 915 mm on rolls 500 mm wide	Inf	
Anglo-American Vulcanised Fibre	Elephantide	As above		
Attwaters	Elephantide	As above		
H Clarke	use description	As above		

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/18000	0.010"thick	
55/18005	0.015"thick	
55/18010	0.020"thick	
55/18037	0.5mm thick	
55/18015	0.030"thick	
55/18020	0.036"thick	
55/18035	1.0mm thick	
55/18025	0.045"thick	
55/18030	0.060"thick	
55/18036	2.0mm thick	
55/18028	6.0mm thick	

SECTION 2.1.
 2.1.1.1 HIGH STRENGTH EPOXY BONDED WOVEN GLASS LAMINATE
 BR SPEC TEE/M/83/P/140 APPENDIX A2.1.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Permalli	Permaglass 22-FE-29		Inf	

Limited approval also given for the following. Cat nos below do not apply

ISM	Silirite 064.111		Inf	Contact D of M&EE before ordering
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The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12661	1/32" x 48" sq	
55/12612	1/16" x 48" sq	
55/12652	1/8" x 48" sq	
55/12616	5/32" x 48" sq	
55/12658	5/32" x 48" sq	
55/12653	3/16" x 48" sq	
55/12654	1/4" x 48" sq	

SECTION 2.1.

2.1.1.2 EPOXY BONDED WOVEN GLASS LAMINATE

BR SPEC TEE/M/83/P/140 and BS 3954 grade EP7

Note: In addition to the following all materials approved to "HIGH STRENGTH EPOXY BONDED WOVEN GLASS LAMINATE BR SPEC TEE/M/83/P/140 APPENDIX A2.1.1" may be used.

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Anglo-American	Grade QG/F	48" x 36" thickness over 0.4 mm	Inf	Not for use as slot wedges for traction motors and main gens
Jones Stroud	Hyperlam 7E	900 mm square sheets from 0.2 to 76 mm thick	Inf	as above
Attwaters	Bakelaque B48		Inf	as above
ISM	Silirite 064.111		Inf	See sheet 2.1.1.1

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/12620	0.5mm x 900mm sq	
55/12638	1.6mm x 900mm sq	
55/12639	3.0mm x 900mm sq	

SECTION 2.2.
 2.2.1 PHENOLIC RESIN BONDED CELLULOSE PAPER BOARD
 BR SPEC TEE/M/83/P/140 APPENDIX A2.2.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Tufnol	IP13	1/32" to 1" thick 48" x 48"	Inf	

Limited approval also given for the following. Cat nos below do not apply

Tufnol	Kite
Tufnol	Heron

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
See Contract 1350/D		

SECTION 2.3.
 2.3.1 PHENOLIC RESIN BONDED COTTON FABRIC BOARD
 BR SPEC TEE/M/83/P/140 APPENDIX A2.3.1

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Tufnol	Carp Brand	48" x 48" x 1/16 to 3.1/2" thick	Inf	
Anglo-American	Grade FY	48" x 48"	Inf	
Attwaters	Bakelaque B10, B11 or B12	0.4 mm - 100 mm thick 1240 x 1240 mm	Inf	

Limited approval also given for the following. Cat nos below do not apply

Tufnol	Bear
Tufnol	Whale
Tufnol	Adder
Tufnol	Swan
Tufnol	vole

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

SECTION 2.4
 2.4.1 Mica Commutator Vee rings
 TO BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Langtec	Shellac Bonded Micanite			
Paul Gunther	Type 10683E			

Limited approval also given for the following

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
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SECTION 2.4
 2.4.2 SHELLAC BONDED MOULDING MICANITE
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Attwaters	Moulding Micanite	0.25 mm to 12 mm x 900 x 600 mm	6 months	
M + 1	PS 3171	0.4 mm - 3.2 mm thick x 711 x 900 mm	6 months	
East London Mica	use description	as above	6 months	
Langtec	MS 503	0.15 - 2.0mm thick 710mm x 965mm	6 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/16240	0.010" thick x 36" x 24"	
55/16255	0.010" thick x 36" x 24"	
55/16420	1/64 " thick x 36" x 24"	
55/16421	0.010" thick x 36" x 36"	
55/16422	0.015" thick x 36" x 36"	
55/16350	0.008" thick x 36" x 24"	
55/16355	0.010" thick x 36" x 24"	
55/16360	0.015" thick x 36" x 24"	
55/16365	0.020" thick x 36" x 24"	
55/16380	0.040" thick x 36" x 24"	
55/16370	0.030" thick x 36" x 24"	

SECTION 2.4
 2.4.3 SHELLAC BONDED COMMUTATOR MICANITE
 TO BR SPEC TEE/M/83/P/140 AND BS 626

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
M + 1	PS 3225	0.5 mm to 1.65 thick x 990 mm x 600 mm	Inf	
H Clarke	use description			
Langtec	MS 500	0.2 - 2.0mm thick 1050 x 750mm	Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
55/16000	0.015" thick	
55/16005	0.020" thick	
55/16110	0.025" thick	
55/16111	0.025" thick	
55/16112	0.026" thick	
55/16113	0.027" thick	
55/16116	0.031" thick	
55/16125	0.040" thick	
55/16150	0.625" thick	

SECTION 3.1.

3.1.2 SHELLAC - AIR DRYING

BR SPEC TEE/M/83/P/140 APPENDIX A3.1.2

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Sterling	010-4000 No. 4 Shellac Dk Brown			

Limited approval also given for the following. Cat nos below do not apply

M + 1	PVL 1418		12 months	
Crosbie	0/016 Black Shellac	28/76001	12 months	

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
28/76760	5L can	Sterling 010/4000
28/76750	No details given	

SECTION 3.1.

3.1.3.1 AIR DRYING VARNISH - CLEAR

BR SPEC TEE/M/83/P/140 APPENDIX A3.1.3

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Sterling	009-0008 (B8 clear)		12 months	

 Limited approval

M + 1	MIVAR 76 Approved for use at ?		12 months	
Crosbie Coatings	Pakyderm 462 approved for use at ?	28/76705	12 months	
	Pakyderm 463 approved for use at ?	28/76720		
Sterling	010/1302 approved for use at ?	28/76039		

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
28/76035	5L can	
28/76038	5L can	
28/76797	16oz aerosol	

SECTION 3.1.
 3.1.3.2 AIR DRYING VARNISH - PIGMENTED
 BR SPEC TEE/M/83/P/140 APPENDIX A3.1.3

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Crosbie Coatings	Insulderm		12 months	
	500 Grey			
Crosbie Coatings	Insulderm		12 months	
	501 Red			
Sterling	VA39 Grey		12 months	
Sterling	VA42 Red		12 months	
Sterling	VA642 Yellow		12 months	

Limited approval also given for the following. Cat nos below do not apply

Crosbie Coatings	Air Speed 255 Grey		Inf	For use at BREL Crewe when spraying generators
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The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
28/30821	VA 39 (B8 Grey)	
28/30820	VA 42 (B8 Red)	
28/30825	VA 642 (B8 Yellow)	
28/30822	VA 63 (B8 Black)	
28/30823	VA 643 (B8 White)	
28/75722	Insulderm 501	

SECTION 3.1.

3.1.4 SOLVENTED STOVING VARNISH (POLYESTER CLASS F)
BR SPEC TEE/M/83/P/140 APPENDIX A3.1.4

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Crosbie Coatings	Armatherm 236		Inf	
Sterling	003 0495 (Mk 495)		Inf	

Limited approval

Crosbie Coatings	Armatherm 235	28/76063	Inf	Approved for use at:-
M + 1	PVL 5037			Approved for use at:-

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
28/76501	5L cans	Mk 495
28/76065		Armatherm 236

SECTION 3.1.

3.1.5 SOLVENTED STOVING VARNISH - SILICONE CLASS H

BR SPEC TEE/M/83/P/140

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Sterling	008 0304			

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

SECTION 3.1.

3.1.6 SOLVENTED STOVING VARNISH - AMIDE IMIDE CLASS C
BR SPEC TEE/M/83/P/140

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Sterling	004 0220			

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
28/76900	Sterling 004 0220	

SECTION 3.2.

3.2.1 SOLVENTLESS POLYESTER STOVING RESIN

BR SPEC TEE/M/83/P/140

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Sterling	075 1480		12 month @ 20°C	

Limited approval also given for the following. Cat nos below do not apply

Trimite	VCC 1105	28/76057	12 month @ 20°C	Not for use on components over 50 kg
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The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
7/57966	Sterling 075-1480	

SECTION 3.2.
 3.2.2 SOLVENTLESS EPOXY STOVING RESIN
 TO BR SPEC TEE/M/83/P/140

Note: Although the following materials are considered interchangeable in use they are not mixable. Therefore separate BR cat nos are given

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
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Limited approval also given for the following. Cat nos below do not apply

EpoxyLite				Approved for use at BREL Chesterfield
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The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

SECTION 4.1.
 4.1.1 STOVING PUTTY
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Sterling	075 1381		12 months	
M + 1	PVL 5147		6 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
7/16333		

SECTION 4.1.
 4.1.2 TWO PACK EPOXY PUTTY
 BR SPEC TEE/M/83/P/140

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
BICC	Bicaseal Putty		2 years	
Sterling	006-5109 006-5110		12 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
7/59970	Bicaseal	
7/60437	Sterling 006-5109 + 006-5110	

SECTION 4.2.
4.2.1 SILICONE RUBBER RTV

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Loctite	Superflex	100 ml tube 315 ml cartridge	6 months	
Bostik	1581		6 months	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
7/60116	White	Loctite Superflex
7/60344	Black	Loctite Superflex
7/60341	Clear	Loctite Superflex

SECTION 5.1.

5.1.1 KAPTON COVERED CONDUCTOR Annealed Copper to BS 1432 (except that the tolerance on round wire shall be in accordance with BS 4665 part 1) Covered with one half lapped layer of Kapton 0.002" thick bonded with 0.0005" FEP(Reference 250.F0.29)

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
ISM	Use description		Inf	
Insulec	Use description		Inf	

Limited Approval also given for the following

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
See 6/ catalogue		

SECTION 5.2.
 5.2.1 MODIFIED POLYESTER COVERED WINDING WIRE CLASS H
 TO BR SPEC TEE/M/83/P/140 AND BS 4665

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Pirelli	Use Description		Inf	
Enfield	Use Description		Inf	
Thames	Use Description		Inf	
BICC	Use Description		Inf	
Sims	Sims 180		Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
See 6/ catalogue		

DIRECTORY OF COMPANIES SUPPLYING APPROVED INSULATING MATERIAL

Anglo-American
DeLANCO Works
Cording Street
London
E14 5NR

Te1: 01 987 5044

Aston Insulating Co. Ltd
72 Lord Street
Birmingham
B7 4DT

Te1: 021 359 1700

Attwaters & Sons Ltd
PO Box 39
Preston

Te1: Preston 58245
Telegrams: Attwaters, Preston
Telex: 67105

BICC Bicaseal Components Ltd
Jointing Systems Division
PO Box 1
Prescot
Merseyside
L34 5SZ

Te1: 051 430 2000
Telex: 629676

Bondina
Geetland
Halifax
West Yorkshire

Ciba-Geigy UK Ltd
Duxford
Cambridge
CB2 4QA

Te1: Sawston (02203) 2121
Telex: 81101

H Clarke & Co (Manchester) Ltd
Atlas Works
Patricroft
Manchester
M30 0RR

Te1: 061 789 5301/7
Telex: 668813

Crosbie Coatings Ltd
Wallsall Street
Wolverhampton
WV1 3LP

Te1: Wolverhampton 53052

Croylec Ltd
The Mill
Boden St
Chard Somerset
TA20 2AX

Te1 (04606) 3414
Telex 46552

Dacier Ltd
22 Bargates
Christchurch
Dorset
BH23 1QN

SECTION 5.3.
 5.3.1 POLYESTER VARNISHED GLASS BRAIDED CONDUCTOR
 TO BR SPEC TEE/M/83/P/140 AND BS 4801

Approved Firm	Trade Name	Available Size	Shelf Life	Remarks
Enfield	Use Description		Inf	
Pirelli	Use Description		Inf	
BICC	Use Description		Inf	
Thames	Use Description		Inf	

Limited approval also given for the following. Cat nos below do not apply

The following BR Catalogue numbers are included as a guide. The information is believed to be correct but confirmation should be obtained by reference to the relevant BR Catalogue.

Cat No.	Size	Remarks
See 6/ catalogue		

Directory of Firms (Cont'd)

Devcon Ltd
Station Road
Theale
Reading
RG7 1AB

Tel: Freephone Devcon

DRG Sellotape
Theobald Street
Borehamwood
Herts
WD6 4SQ

Tel: 01 953 1655
Telex: 262462

Dunlop Semtex Ltd
Industrial Product Division
Chester Road
Birmingham
B35 7AL

Tel: 021 373 8101

East London Mica Ltd
Ringwood Road
London
E17 8PP

Tel: 01 520 2248/9
Telex: 896691

Enfield Winding Wire
Lockfield Avenue
Enfield
Middlesex

Tel: 01 804 1255
Telex: 22869

Edlan Elekem
Prinny Hill Works
Blackburn Road
Haslingdon
Rossendale
Lancashire

Tel: Rossendale 0706 229067

Evode Ltd
Common Road
Stafford
ST16 3EH

Tel: Stafford (0785) 57755

Fothergill Engineered Fabrics
Summit
Littleborough
Lancashire
OL15 90P

Tel: Littleborough 78831
Telex: 63245

Directory of Firms (Cont'd)

Fothergill Polymers
Colley Lane
Bridgewater
Somerset
TA6 5JN

Fluorocarbon
Caxton Hill
Hertford
Herts
SG13 7NH

General Electric Corp (USA) Tel: Horwich 692531
Division of Engineering Polymers Ltd
Moss Trading Estate
Lancashire
WN7 3PT

Gebauer & Griller
Muthgasse 34
A-1194 Vienna
P O B 2

Agent: Insulec (Electrical) Ltd Tel: 0745 570769
9 Clwyd Avenue
Dyserth Rhyl
Clwyd
LL1 6HN

Gunther (Paul)
See Paul Gunther

Ideal Tape Co.
Zaning Industrieel
Industriezone B9600 RONSE
RENAIX
BELGIUM

Agent: Insulec (Electrical) Ltd Tel: 0745 570769
9 Clwyd Avenue
Dyserth Rhyl
Clwyd
LL1 6HN

I.S.M.
Insulation System & Machines Ltd Tel: 0274 687777
Wharfedale Road Telex: 517142
Euroway Estate
Brierley
Bradford
West Yorkshire
BD4 6SG

Directory of Firms (Cont'd)

Jones Stroud
Longbridge
Preston
PR3 3BS

Tel: Longridge(077478) 3011
Telex: 67559

Kensulat
Power Road
Chiswick
London
W4 5PZ

Tel: 01 994 6422
Telex: 934040 Kent G

Langtec Limited
Faraday Road
Crawley
West Sussex
RH10 2PL

Tel: Crawley (0293) 29091
Telex: 877641

Lilleys Narrow Fabrics Ltd
Washington Mills
Draycott Road
Borrowash

Loctite (UK) Ltd
Watchmead
Welwyn Garden City
Herts
AL7 1JB

Tel: Welwyn Garden 31277

3M United Kingdom Ltd
Edmund House
12/2 Newhall Street
Birmingham
B3 3EL

Tel: 021 236 5077

M & I
The Micanite & Insulators Co. Ltd
Westinghouse Road
Trafford Park
Manchester
M17 1PR

Tel: 021 236 5077
Telex: Via Bracknell 849371

Nitto UK
84 Uxbridge Road
Ealing
London W13 8RH

Tel 01 579 9386
Telex 267221 Nitto G

Norton Performance Plastics
Chesterton Works
Loomer Street
Newcastle
Staffs
ST5 7HR

Directory of Firms (Cont'd)

Paul Gunther GmbH
Korbacher Strasse 6
3548 Arolsen
West Germany

Agent Micability Sales Ltd.
12 North Grove
Highgate
London N6 4SL

Tel 01 348 2121

Permal Ltd
Bristol Road
Gloucester

Tel: 0452 28282
Telex: 43293

Pirelli General Plc
PO Box 4
Western Esplanade
Southampton SO9 7AE

Tel Southampton(0703) 34366
Telex 47522 PIRGEN G

Polypenco
43 Raymonds Plain
Welwyn Garden City
Herts

Rotunda Ltd
150 Holland Street
Denton
Manchester
M34 3GH

Agent: Pebody & Muston Ltd
Halstead Street
Leicester
LE5 3RD

Tel: 0533 530420

Sims F D
PO Box 8
Hazelhurst Works
Ramsbottom
Bury
BL0 9PL

Tel: Ramsbottom (070 682) 5821
Telex: 535545

Sterling Varnish Co. Ltd
Frasser Road
Trafford Park
Manchester
M7 1DU

Tel: 061 848 8411

Directory of Firms (Cont'd)

H D Symons & Co Ltd
Horace Road
Kingston Upon Thames
Surrey

Tel: 01 546 4422
Telex: 24997

Thames Wire and Cable Co
Brewery Road
Hoddesden
EN11 8HF

Tel 0992 463731

Tufno1 Industrial Plastics
Tufno1 Ltd
PO Box 376
Perry Bar
Birmingham
B42 2TB

Tel: 021 356 9351
Telex: 339730