



- 3D CAD Design service
- Material selection guides
- Mouldflow analysis capability
- Stereolithographic (SLA) modelling
- SLS (Selective Laser Sintering) rapid prototyping
- RoHS Statement
- REACH Statement



Most products are available direct from stock with same day despatch - please contact sales for details





Product Selector

Miles-Platts Coil Bobbins for Laminations

Not sure where to start? Use the table below to help you choose which coil bobbin is suitable for your application. If you need any assistance, can't find what you need or need to ask a question about materials, please call - we're only too happy to help.

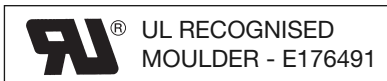
UK/USA Format Coil Bobbins for Laminations (Section 3)

Lamination Size / Pattern		Plain Bobbins or Optional terminals fitted Choose from TBS 900 Series (Section 9)	No terminal options
UK	US		
250	375		K Range - Section 3, page 14 - Slotted Cheeks - SS & DS - 2FL & 3FL - No Terminals
621			
18	560 (9/16)	S Range - Section 3, page 24 - SS, DS & SDS - 2FL, 3FL & VDE	
145	62 (5/8)		
74	68 (1 1/16)	A Range - Section 3, page 2 - SS, DS & SDS - Terminal Covers - 2FL, 3FL & VDE - Different Cheek Styles - Insulation Covers - Flying Lead Concept - Terminals from TBS900 Series	
35	75 (3/4)		
147	87 (7/8)		
29	100 (1)		
196	112 (1 1/8)		
78	125 (1 1/4)		
120	150 (1 1/2)		L Range - Section 3, page 15 - SS & DS - 2FL & 3FL - No Terminals - Robust Construction - Suitable for larger laminations & wire gauges
248	175 (1 3/4)		
638	212 (2 1/8)		
750	250 (2 1/2)		
825			
E9/9A	300 (3)		
218	187	VM Range - Section 3, page 30 - Miscellaneous size bobbins - refer to catalogue for pin and flange configurations	
621			
158			
21			

Metric Coil Bobbins for Laminations (Sections 4 & 5)

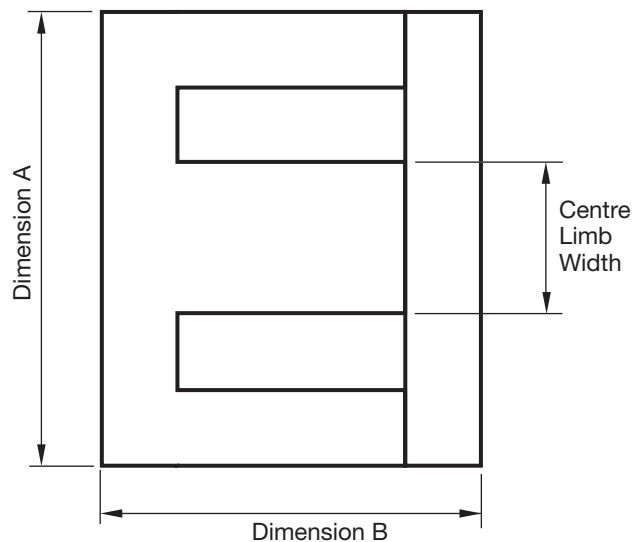
30% Glass Filled Nylon PA66 to UL94HB & UL94V0 as standard or PET 30% to UL94V0. Alternative materials available - refer to section 2, page 8								
EI FORMAT LAMINATIONS					UI/3UI FORMAT			
Metric Lamination Size (mm)	Optional Terminals fitted. Choose from TBS 600 (Section 9)	Wire Pin Versions	No terminals Optional Screw Connectors available	Connector Mounting Strips moulded in bobbin	Wire Pin Versions	No Terminals Optional Screw Connectors available	Lamination Size (mm)	
EI 30	M Range - Section 4, page 2 - Choose terminals from TBS600 Series - SS, DS & SDS - 2FL, 3FL & VDE - Insulation Covers - Terminal Cover (EI48)	M Range - Section 4, page 17 - Wire pin versions of main range - SS, DS & SDS - 2FL, 3FL & VDE - Insulation covers	N Range - Section 5, page 2 - Encapsulated versions - Low profile - Boxes		U Range - Section 5, p7 - Encapsulated - Low profile boxes		UI 30	
EI 38								UI 39
EI 42								
EI 48								
EI 54								
EI 60								
EI 66							Large Metric Range - Section 4, page 28 - SS & DS - 2FL & 3FL - Insulating bushes for bolts - Connector mounting strips - 16A, 30A & 63A screw connectors - Winding spacers - Suitable for larger laminations & wire gauges	UI 60
EI 75					Large Metric Range	UI 66		
EI 78						UI 75		
EI 84						UI 90		
EI 96					UI 100			
EI 108					UI 120			
EI 114					UI 150			
EI 120				Large Metric Range	UI 180			
EI 135					UI 210			
EI 150				Large Metric Range	UI 240			
EI 180					UI 300			
EI 192								
EI 240								
EI 270/217								

For further technical information please contact sales
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 Email: enquiries@milesplatts.co.uk
 Web: www.milesplatts.co.uk





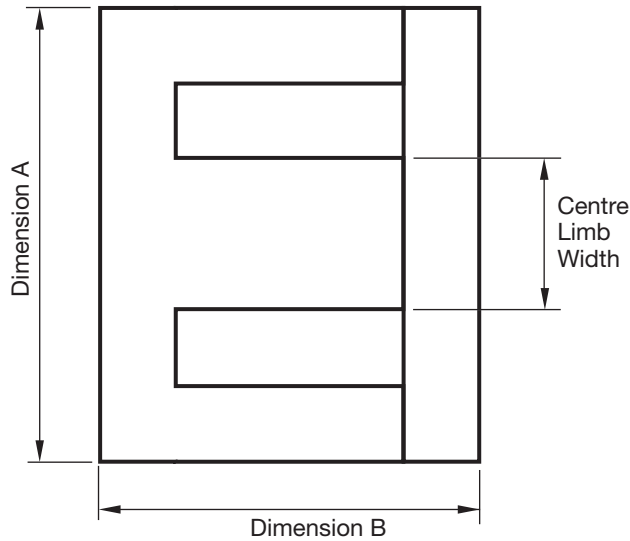
Single Phase UK/USA EI Lamination Sizes



UK Lamination Reference	Centre Limb Width Inches	Dimension A Inches	Dimension B Inches	Equivalent Metric Lamination	Equivalent USA Lamination Ref (MP Ref)
18	0.562	1.686	1.405		EI 560 ($\frac{9}{16}$)
145	0.625	1.875	1.563	EI 48	EI 62 ($\frac{5}{8}$)
74	0.688	2.064	1.720		EI 68 ($\frac{11}{16}$)
35	0.750	2.250	1.875		EI 75 ($\frac{3}{4}$)
147	0.875	2.625	2.188		EI 87 ($\frac{7}{8}$)
29	1.000	3.000	2.500		EI 100 (1)
196	1.125	3.375	2.813		EI 112 ($1\frac{1}{8}$)
78	1.250	3.750	3.125	EI 96	EI 125 ($1\frac{1}{4}$)
120	1.500	4.500	3.750		EI 150 ($1\frac{1}{2}$)
248	1.750	5.250	4.375	EI 135	EI 175 ($1\frac{3}{4}$)
638	2.125	6.375	5.313		EI 212 ($2\frac{1}{8}$)
750	2.500	7.500	6.250	EI 192	EI 250 ($2\frac{1}{2}$)
825	2.750	8.250	6.875		
E9	3.000	9.000	7.500		EI 300 (3)
217	3.500	10.500	8.750	EI 270	
135	4.500	13.500	11.250		



Single Phase Metric EI Lamination Sizes

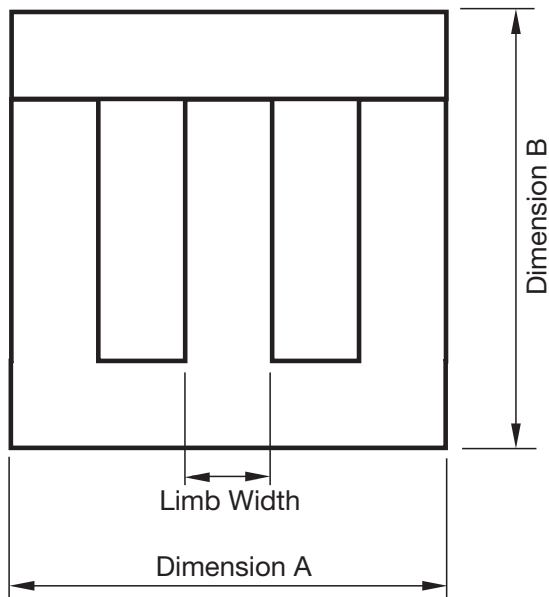


Lamination Reference	Equivalent Reference (IEC)	Centre Limb Width mm	Dimension A mm	Dimension B mm	Equivalent Imperial Lamination
EI 30	YEI 1-10	10.0	30.0	25.0	
EI 38	YEI 1-13	12.7	38.1	31.8	
EI 42	YEI 1-14	14.0	42.0	35.0	
EI 48	YEI 1-16	16.0	48.0	40.0	145
EI 54	YEI 1-18	18.0	54.0	45.0	
EI 60	YEI 1-20	20.0	60.0	50.0	
EI 66	YEI 1-22	22.0	66.0	55.0	
EI 75	YEI 1-25	25.0	75.0	62.5	
EI 84	YEI 1-28	28.0	84.0	70.0	
EI 96	YEI 1-32	32.0	96.0	80.0	78
EI 108	YEI 1-36	36.0	108.0	90.0	
EI 114	YEI 1-38	38.0	114.0	95.0	120
EI 120	YEI 1-40	40.0	120.0	100.0	
EI 135	YEI 1-45	45.0	135.0	112.5	248
EI 150	YEI 1-50	50.0	150.0	125.0	
EI 180	YEI 1-60	60.0	180.0	150.0	
EI 192	YEI 1-64	64.0	192.0	160.0	750
EI 240	YEI 1-80	80.0	240.0	200.0	

Note: Centre Limb Width of EI 135 Lamination is 1.772 inches as against 1.75 inches for the 248 Lamination.



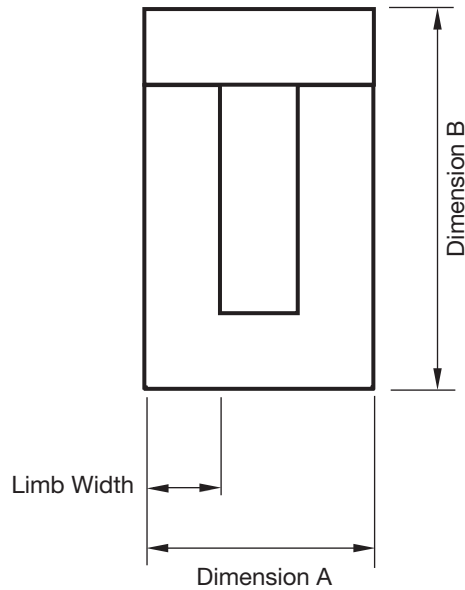
Three Phase Metric 3UI Lamination Sizes



Lamination Reference (Blum)	Equivalent Reference (IEC)	Equivalent Reference (European)	Equivalent Reference (Trancerie)	Equivalent Reference	Limb Width mm	Dimension A mm	Dimension B mm
3UI 30	YUI 3 - 10	EI 50/50	EIT 10	3EI 50	10.0	50.0	50.0
3UI 39	YUI 3 - 13	EI 65/65	EIT 13	3EI 65	13.0	65.0	65.0
3UI 48	YUI 3 - 16	EI 80/80	EIT 16	3EI 80	16.0	80.0	80.0
3UI 60	YUI 3 - 20	EI 100/100	EIT 20	3EI 100	20.0	100.0	100.0
3UI 66	YUI 3 - 22	EI 110/110	EIT 22	3EI 110	22.0	110.0	110.0
3UI 75	YUI 3 - 25	EI 125/125	EIT 25	3EI 125	25.0	125.0	125.0
3UI 90	YUI 3 - 30	EI 150/150	EIT 30	3EI 150	30.0	150.0	150.0
3UI 120	YUI 3 - 40	EI 200/200	EIT 40	3EI 200	40.0	200.0	200.0
3UI 150	YUI 3 - 50	EI 250/250	EIT 50	3EI 250	50.0	250.0	250.0
3UI 180	YUI 3 - 60	EI 300/300	EIT 60	3EI 300	60.0	300.0	300.0
3UI 210	YUI 3 - 70	EI 350/350	EIT 70	3EI 350	70.0	350.0	350.0
3UI 240	YUI 3 - 80	EI 400/400	EIT 80	3EI 400	80.0	400.0	400.0
3UI 300	YUI 3 - 100	EI 500/500	EIT 100	3EI 500	100.0	500.0	500.0



Single Phase Metric UI Lamination Sizes



Lamination Reference	Equivalent Reference (IEC)	Limb Width mm	Dimension A mm	Dimension B mm
EI 30	YUI 1-10	10.0	30.0	50.0
EI 39	YUI 1-13	13.0	39.0	65.0
EI 48	YUI 1-16	16.0	48.0	80.0
EI 60	YUI 1-20	20.0	60.0	100.0
EI 66	YUI 1-22	22.0	66.0	110.0
EI 75	YUI 1-25	25.0	75.0	125.0
EI 90	YUI 1-30	30.0	90.0	150.0
EI 120	YUI 1-40	40.0	120.0	200.0
EI 150	YUI 1-50	50.0	150.0	250.0
EI 180	YUI 1-60	60.0	180.0	300.0
EI 210	YUI 1-70	70.0	210.0	350.0
EI 240	YUI 1-80	80.0	240.0	400.0



Product Selector

Ferrite Cores

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Section 2

Miles Platts Coil Bobbins for Ferrite Cores

Ferrite Geometry	Sizes Available	Pin styles	Accessories Available	Page Number
EP	EP7, EP10, EP13, EP17, EP20	PTH + SMD	Clips, covers	Section 6, Page 2
E & EE	E5, E6.3	PTH + SMD	Clips, covers	Section 6, Page 1
EF	EF 12.6	PTH + SMD	Clips + box	Section 6, Page 25
	EF 16	PTH	Clips	Section 6, Page 25
	EF 20 (Horizontal & Vertical)	PTH	Clips	Section 6, Page 25
	EF 20 Concentric	PTH	Clips	Section 6, Page 25
	EF 25 (Horizontal & Vertical)	PTH	Clips	Section 6, Page 25
	EF 25 (F1238) Horizontal	PTH	Clips	Section 6, Page 25
	E30	PTH		Section 6, Page 25
	EF 32	PTH		Section 6, Page 25
	E 34 (F1239)	PTH		Section 6, Page 25
	E 41 (F1007)	PTH		Section 6, Page 25
	E 42 (Horizontal & Vertical)	PTH		Section 6, Page 25
	E 55	PTH		Section 6, Page 25
	E 65 (Horizontal & Vertical)	PTH		Section 6, Page 25
ER	ER 9.5, ER 11.5, ER 14.5	SMD	Clips	Section 6, Page 49
EFD	EFD 12, EFD 15	SMD	Clips, covers	Section 6, Page 52
	EFD 20, EFD 25, EFD 30	PTH	Clips, covers	
RMs	RM 4, RM 5, RM 6, RM 8, RM 10, RM 12, RM 14,	PTH	Clips	Section 6, Page 58
	RM 5, RM 6	SMD	Clips	
EC	EC 35, EC 41, EC 52, EC 70	PTH		Section 6, Page 74
ETD	ETD 29, ETD 34, ETD 39, ETD 44, ETD 49, ETD 54, ETD 59 Horizontal	PTH	Clips	Section 6, Page 76
	ETD 29, ETD 34, ETD 39, ETD 44, ETD 49 Vertical	PTH	Clips	Section 6, Page 80
	ETD 34V, 5 chamber & 8 chamber	PTH	Clips	Section 6, Page 81
U	U + I 12.7	PTH		Section 6, Page 83
	U 13.5, U15, U21, U25, U20	PTH		
PQ	PC-B2016, PC-B2020, PC-B2620, PC-B2625, PC-B3220, PC-B3230, PC-B3535, PC-B4040	PTH		Section 6, Page 87
EK	EK 32	PTH		Section 6, Page 88

Miles Platts Coil Bobbins for Ferrite Cores

The following table offers a guideline to assist in selecting the correct bobbin geometry appropriate to the power required.

Ferrite Style	POWER RANGE (W)							
	<5	5 - 10	10 - 20	20 - 50	50 - 100	100 - 200	200 - 500	500 - 1K
EI	EI 12.5	EI 16	EI19	EI 25	EI 40		EI 50	EI 60
EE	EE 13	EE 16	EE 19	EE 25	EE 40	EE 42	EE 55	EE 65
EF	EF 12.6	EF 16	EF 20	EF 25	EF 30	EF 32		
EFD		EFD 12	EFD 15	EFD 20	EFD 25	EFD 30		
EPC		EPC 13	EPC 17	EPC 19	EPC 25	EPC 30		
EER	EER 9.5	EER 11	EER 14.5	EER 28	EER 35	EER 42	EER 49	
ETD				ETD 29	ETD 34	ETD 44	ETD 49	ETD 54
EP	EP 10	EP 13	EP 17	EP 20				
RM	RM 4	RM 5	RM 6	RM 10	RM 12	RM 14		
POT	POT 1107	POT 1408	POT 1811	POT 2213	POT 3019	POT 3622	POT 4229	
PQ				PQ 2016	PQ 2625	PQ 3230	PQ 3535	PQ 4040
EC						EC 35	EC 41	EC 70

SMPS Power throughput for transformer types @ 100KHz.

Miles-Platts are technical moulders - we manufacture more than bobbins - please contact sales for details





Moulding Materials

All materials are RoHS & REACH compliant

Miles-Platts standard moulding materials are:

UNN	Unreinforced Nylon 66 UL94V2	FR3	PET Polyester UL94V0
GNN	Glass reinforced Nylon 66 UL94HB		
FUN	Flame retardant Unreinforced Nylon UL94V0		
FGN	Flame retardant Glass reinforced Nylon UL94V0		

This product guide is based upon the above standard materials. Other materials are available for any product subject to minimum usage quantities - please contact sales for details.

Moulding Materials

Miles Platts have the capability to process an extensive variety of engineering thermoplastic materials. Giving the engineers the flexibility to select the most appropriate specification to achieve a cost effective solution. Miles Platts work closely with the leading plastic compound manufacturers such as DuPont, Rhodia, B.A.S.F., Bayer, DSM, Thermofil and Phillips Petroleum, continually testing new and advanced materials ensuring that customers benefit from leading edge moulding technology.

There are important considerations essential in the selection of a suitable material, due to the rigorous quality criteria now demanded by modern electrical / electronic technology. Currently satisfying the majority of commercial applications are the following:-

Nylon 66 Unreinforced and Nylon 66 Glass Reinforced

Used in the majority of coil bobbin applications worldwide due to its relative low cost and ability to mould thin sections whilst retaining a high degree of stiffness. Unreinforced Nylon 66 and Glass Reinforced Nylon 66 have a recommended rating of Class B (130°C maximum).

Flame Retardant Nylon 66 Unreinforced and Nylon 66 Glass Reinforced

These materials have similar characteristics to Nylon 66. A Halogen-free Flame Retardant system is incorporated to meet a flammability rating of UL94V-0.

Nylon 46 Unreinforced and Glass Reinforced

Nylon 46 differs from Nylon 66, having a higher heat resistance, is tougher, more rigid and has low creep at high temperatures. Available in Flame Retardant.

Liquid Crystal Polymer - LCP

LCP benefits from superior high temperature performance, dimensional stability whilst moulding extremely thin sections.

Thermoplastic Polyesters - PBTP and PETP

These materials are increasingly selected for applications where high stiffness, low moisture absorption, dimensional and thermal stability characteristics are required.

DuPont RYNITE PET polyester resins have the additional advantage of UL1446 system approvals allowing high temperature classifications to be met.

Polyphenylene Sulfide - PPS

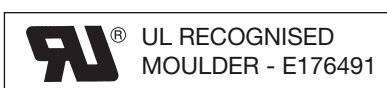
PPS has a high resistance to deformation, benefiting from extreme stiffness and is very stable at high temperature. Inherently non-flammable.

Frame VA Ratings

Frame VA capabilities shown on standard bobbin tables for laminated core transformers are based on an approximate 70°C temperature rise for single section bobbins and should only be taken as a design guide. The actual output VA that can be achieved will depend upon the utilisation factor of the available bobbin winding area for the wire sizes, screens and interwinding insulation used in the design.

PROPERTY	ASTM	TEST UNITS	UNREINFORCED		REINFORCED		F/R Nylon 46	PBT	PET	HTN	PPS	LCP
			Nylon 66	F/R Nylon 66	Nylon 66	F/R Nylon 66						
Tensile Strength at break	D638	MPA	83	75	186	135	100	141	152	214	155	145
Elongation at break	D638	-	60	3	3	2	7	2.4	2.3	2.4	0.05	2.2
Flexural Strength	D790	MPA	-	125	-	205	235	217	221	-	260	174
Compressive Strength	D695	MPA	34	-	-	-	170	-	172	-	179	89
Impact Strength	D256	J/M	53	7	117	12	23	118	85	96	69	225
Flex Modulus	D790	GPa	2.8	-	9.0	-	-	9.6	10	10	-	13
Underwriters lab ratings		UL94	V-2	VO	HB	VO	VO	VO	VO	HB	VO	VO
Oxygen Index	D2863	%O ₂	31	32	-	32	37	35	33	-	46.5	39
Glow Wire Test	VDE0471 Part 2-1 / IEC 695-2-1	°C	960 (0.71)	960 (1.6)	960 (1.0)	960 (1.0)	-	-	960 (0.75)	750 (0.85)	750 (1.0)	960 (0.85)
Dielectric 1 Khz	D150		4.0	-	-	-	4.5	4.2	4.1	4.4	3.8	3.5
Constant 1 Mhz	D150		3.9	-	4.5	-	4.5	4.2	4.1	4.0	3.8	3.5
1 Ghz	D150		3.6	-	3.7	-	4.5	4.2	4.1	-	3.8	3.5
Comparative Tracking Index*	D3638	volts	-	575	600+	575	250	-	-	600+	200	167
Arc Resistance	D495	Seconds	-	-	135	-	-	-	117	-	34	-
Volume resistivity	D257	Log (ohm-cm)	13	14	15	14	10	15	15	15	15	16
Thermal expansion -50°C - 200°C	D696	cm/cm/°C x 10 ⁻⁵	7	6-7	2.3	2-3	5	2.5	2.5	-	-	1.4
Heat deflection temperature	D648	°C	90	135	249	250	284	208	224	260	260	295
Water Absorption 24 hours	D570	-	1.2	1.15	0.7	0.75	0.9	0.05	0.05	0.4	-	0.002
Specific Gravity	D792	KGM-3	1.14	1.17	1.38	1.38	1.68	1.72	1.67	1.47	1.67	1.47

*CTI may vary depending on colour and grade specified.





UL Approved Moulding Materials

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Section 2

Group	Miles Platts Material Code	Specific * Material Code	Manufacturer	Trade Name	UL 94 Flammability Rating (mm)	UL Yellow Card Number	Recommended ** Max. System Temp.
Nylon 66							
30% Glass Reinforced	GNN	Z30	DuPont	Zytel 70G30 HSL	HB (0.75)	E41938	Class B 130°C***
25% Glass Reinforced	FGN	V25	Rhodia	Technyl A20 V25	V0 (0.75)	E44716	Class B 130°C
Unreinforced	FUN	U20	Rhodia	Technyl A20	V0 (0.75)	E44716	Class B 130°C
Unreinforced	UNN	101	DuPont	Zytel 101L	V2 (0.71)	E41938	Class B 130°C
Unreinforced	UNN	10F	DuPont	Zytel 101F	V2 (0.71)	E41938	Class B 130°C
Unreinforced	-	A63	Frisetta	Frianyl A63V2	V2 (0.38)	E86034	Class B 130°C
Nylon 66/6							
30% Glass Reinforced	GNN	T30	Rhodia	Technyl B218V30	HB (0.75)	E44716	Class B 130°C
High Temperature Nylon							
35% Glass Reinforced		HTN	DuPont	Zytel HTN 51G35HSL	HB (0.85)	E41938	Class H 180°C
35% Glass Reinforced		FTN	DuPont	Zytel HTN FR51G35L	VO (0.81)	E41938	Class H 180°C
Nylon 46							
30% Glass Reinforced		FST	DSM	Stanyl TE250 F6	V0 (0.35)	E47960	Class H 180°C
PET Polyester							
30% Glass Reinforced		FR3	DuPont	Rynite FR530L	V0 (0.35)	E41938	Class N 200°C
PBT Polyester							
30% Glass Reinforced		ARN	DSM	Arnite TV 4260S	V0 (1.5)	E47960	Class F 155°C
30% Glass Reinforced		261	DSM	Arnite TV 4261	HB (0.71)	E47960	Class F 155°C
30% Glass Reinforced		FVX	Sabic	Valox 420 SEO	V0 (0.71)	E45329	(To Be Confirmed)
PPS Polyphenylene Sulphide							
40% Glass Reinforced		FRY	Chevron Phillips	Ryton R-4 02 XT	V0 (0.51)	E54700	Class N 200°C
LCP Liquid Crystal Polymer							
30% Glass Reinforced		E13	Ticona	Vectra E130i	V0 (0.2)	E83005	Class R 240°C
30% Glass Reinforced		FZN	DuPont	Zenite 6130L	V0 (0.38)	E41938	Class R 240°C
*****		***	Sumitomo Chemical Co Ltd	Sumikasuper E4008(k)	V0 (0.3)	E54705	Class F 180°C +
PF Phenolic							
Glass / mineral Filled		96J	Sumitomo Bakelite Co Ltd	Sumikon PM-9630	V0 (0.16)	E41429	Class F 155°C +
Glass / mineral filled		98Z	Sumitomo Bakelite Co Ltd	Sumikon PM-9820	V0 (0.16)	E41429	Class F 155°C +

The above list reflect popular the materials used over our standard ranges and the more popular grades used on custom designed mouldings. Not all of these materials are offered as standard on all products, details of standard materials for products are shown on the catalogue page. Should alternative materials to the standard material be required (including materials not shown) a request to our sales department should be made prior to ordering, minimum order quantities, and machine setting up charges may apply.

GNN is Miles Platts material code for a 30% Glass Reinforced Nylon to a flammability rating of UL94HB – We currently use the materials as listed above, but we reserve the right to use an alternative material of the same or better characteristics should quality or commercial reasons arise. Please use the specific material code* to specify a particular material.

UNN is Miles Platts material code for an Unreinforced Nylon (used primarily for Insulation covers and potting boxes) to a flammability rating of UL94V2 – We currently use the materials as listed above, but we reserve the right to use an alternative material of the same or better characteristics should quality or commercial reasons arise. Please use the specific material code* to specify a particular material.

FGN is Miles Platts material code for a Glass Reinforced Nylon to a flammability rating of UL94V0 – We currently use the materials as listed above, but we reserve the right to use an alternative material of the same or better characteristics should quality or commercial reasons. Please use the specific material code* to specify a particular material.

FUN is Miles Platts material code for an Unreinforced Nylon (used primarily for Insulation covers and potting boxes) to a flammability rating of UL94V0 – We currently use the materials as listed above, but we reserve the right to use an alternative material of the same or better characteristics should quality or commercial reasons arise. Please use the specific material code* to specify a particular material.

Specific materials used for GNN, UNN, FGN & FUN can be ordered under their specific material codes, i.e. if only Technyl B218 V30 is required then the specific material code T30 should be used – ordering specific materials other than GNN, UNN, FGN or FUN can though mean an increase in the component price. Information on prices and availability should be discussed with our sales office.

**Recommended maximum system temperature classification may have been obtained by means of testing through UL 1446 or interpretation of IEC60085 / IEC 61587, please contact our technical office for further information.

*** DuPont Zytel 70G30HSL have now various Class F 155°C Systems available.

Many systems have been recognised by UL1446. Many materials have been incorporated into systems class ratings up to Class R 240°C. Complete details of these systems and information of how to apply them are available from our Technical sales department.

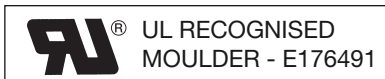
The materials listed above are those which we currently use on a regular basis, a further wide range of materials can be used if required, please contact our Technical sales department for further details.

Responsibility For Selection

The responsibility for the selection of appropriate materials and systems lies with the manufacturer of the electro-technical product. Only experience or adequate acceptable tests provide basis for assigning rational temperature limits for the insulation. Service experience is an important basis for the selection.

Last update May 2009

Most products are available direct from stock with same day despatch - please contact sales for details





Layout of the UL iQ™ Yellow Card

Component - Plastics E41938 — UL File Number

Manufacturer's Name: **E I DUPONT DE NEMOURS & CO INC**
ENGINEERING POLYMERS, CHESTNUT RUN PLAZA, PO BOX 80713, WILMINGTON DE 19880

Material Grade: **6130L (m)**
Liquid Crystal Polymer (LCP), 'Zenite', furnished as pellets

UL94 Frame Class: **V-0**

Minimum Thickness Approved: **0.38, 0.75, 1.0, 1.5, 3.0**

Material Colours Tested: **BK, WT, ALL**

Colour	Min. Thick. mm	Frame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
BK	0.38	V-0	-	-	240	130	130
	0.75	V-0	3	4	240	220	240
WT	1.0	V-0	3	4	240	220	240
ALL	1.5	V-0	1	4	240	220	240
	3.0	V-0	0	4	240	220	240

Comparative Tracking Index (CTI): **3** Dimensional Stability (%): -
 High-Voltage Arc Tracking Rate (HVTR): **4** High Volt, Low Current Arc Resis (D495): -
 Dielectric Strength (kV/mm): **21** Volume Resistivity (10⁴ ohm-cm): -

(m) - Virgin and regrind up to 50% have the same basic characteristics except for the Electrical RTI rating below the 0.75 mm thickness.

NOTE - (1) Material designations that are color pigmented may be followed by suffix letters and numbers.
 (2) Material designations may be prefixed by "ZYT" or "MIN" or "ZEN" or "DEL" or "CRA" or "RYN".

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 1989-10-11. Underwriters Laboratories Inc®
 Last Revised: 2004-03-09.

IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness Tested (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.38	V-0 (BK)
			0.75	V-0 (BK)
			1.0	V-0 (WT)
			1.5	V-0 (ALL)
			3.0	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	0.75	960
			1.0	960
			1.5	960
			3.0	960
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	0.75	850
			1.0	825
			1.5	825
			3.0	875
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m2	-	-
ISO Izod Impact	ISO 180	kJ/m2	-	-
ISO Charpy Impact	ISO 179-2	kJ/m2	-	-

Underwriters Laboratories Inc®

Yellow cards for all of our moulding materials can be found at <http://iq.ul.com>. Miles Platts is a UL recognised moulder - E176491

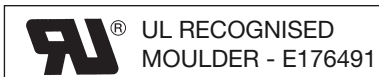
Approval of engineering plastics

UL approval is generally essential before equipment can be sold in the United States. Approval tests on equipment are lengthy and expensive. The operation can however be greatly simplified if UL-approved materials, i.e. appearing on the yellow cards, are used. Engineering plastics manufacturers are therefore having an increasing number of materials approved to make things easier for users.

Approval covers three aspects:

- flame class, governed by the UL 94 standards,
- temperature indices, governed by the UL 746 B standard,
- basic properties, determined under the UL 746 A standard.

The results are given for each material, in each colour, and for a specific thickness, which is the actual thickness of the specimen tested. This means that comparisons between materials are valid only if the thickness is the same.





Miles Platts achievement as a UL Recognised Moulder

QMMY2.E176491 - January 20, 1997

Fabricated Parts - Component

MILES-PLATTS LTD

Unit Z, Blaby Industrial Park,
Winchester Avenue, Blaby,
Leicester LE8 4GZ, United Kingdom

E176491

Fabricated plastic parts, Recognition based on material traceability, UL assigned designation A1753.

Marking: Company name and UL assigned designation on part, shipping carton, or spec sheet in shipping carton.

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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When using a moulded bobbin in a UL1446 electrical insulation system a UL recognised moulder must manufacture the bobbin to ensure full traceability of materials.

RoHS Statement

All standard moulding materials used by Miles-Platts are certified by the relevant manufacturer to comply with European directive 2002/95/EC (RoHS). Please refer to our website for further information.

Miles-Platts provide lead-free plating on all terminals & wire.
Please consult technical sales for any specific requirements or information.

REACH Statement

All standard moulding materials used by Miles-Platts are certified by the relevant manufacturer to comply with European REACH directive. Please refer to www.milesplatts.co.uk for further information.



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“ We develop product and processes through innovation and technology. ”

“ Wir entwickeln Erzeugnisse und Verfahren durch Innovation und Technologie. ”

“ Nous développons des produits et des procédés par l’innovation et la technologie. ”

“ Desarrollamos los productos y los procesos mediante la innovación y la tecnología. ”

