

Hesgon
NARROW FABRICS

Fiberglass Polyester Polyester-Glass



Electrical
Thermal
Mechanical
Military and Aerospace
Coating and Laminating
Reinforcing for Plastics

Electrical Insulation Tapes

100% Fiberglass Non-shrinkable Tapes

Construction

The high tensile strength and thermal endurance of glass fibers enables Hesgon to manufacture tapes in minimal thicknesses. This allows design engineers more flexibility and enables them to increase copper content and power ratings in electrical apparatus.

Heat Resistance

In electrical equipment, whether operating in high ambient temperatures or developing high internal temperatures. Hesgon glass tapes are virtually unaffected. The thermal endurance is limited only by the resins or varnishes combined with the tape. The fiberglass tape does not start to soften until 732°C. The high thermal conductivity and rapid heat dispersion of glass tape is also very important in electrical equipment.

Finishes

CT Finish & CT Yellow

This is a weave-setting finish wherein the warp and filling yarns are slightly fused together to stabilize the weave pattern and minimize the shifting of yarns. The tape retains its original white color with CT Finish and has a light yellow color with the CT Yellow Finish. This finish reinforces the tape and better enables it to withstand the abrasion frequently encountered in any winding operation. This tape, along with a Gilt Edge Finish, is our best product for increasing operator comfort since it minimizes fiberglass dust and its associated mechanical irritation problems.

G10E Golden Finish

This is a weave-setting finish and constitutes a partial removal of yarn sizing. The tape is heated to a relatively low temperature and some of the oils and starch volatilize. The remaining starch is caramelized. This finish will improve the penetration of most varnishes due to the reduced binder content of the tape. The tape will cut cleanly without fraying and has a distinct golden tan coloration.

Gilt Edge Finish

A coating of synthetic resin is applied to the edges of the completed roll of tape with this treatment. This aids in better handling of the tape by the operator as it will not unroll without applying tension in a hand taping operation. The edges of the tape are

Strength

The high tensile strength of glass tapes prevents breakage under conditions that might normally weaken other insulating tapes. Pound for pound, fiberglass yarns are twice as strong as steel. Hesgon glass tapes retain 50% of their tensile strength at 340°C.

Impregnation properties

Hesgon tapes are manufactured of 100% fiberglass yarns with a minimum amount of sizing thus allowing for good wet-out impregnation. All tapes are also available in our standard or custom finishes. In order to achieve maximum results with all the various resins available we are always striving to improve our various finishes.

reinforced to minimize fraying and unraveling when machine or hand taping.

112 Finish

In this heat cleaning process, the starch and oil binder is completely removed from the tape. This treatment is compatible with most all resins and the best adhesion or bond strength with silicone is achieved with this finish.

No 16 Finish

In this heat cleaning process the organic starch and oil binder is almost completely removed from the tape. A light coating of polyester and epoxy compatible silane finish is added to the tape for superior wet-out performance.

Golden Gilt Edge Finish

This double treatment combines our G10E Golden Finish with our Gilt Edge treatment to provide a tape that does not slip, unravel or fray during the taping operation. The treatment provides a good base and improved adhesion for subsequent varnish treatment, provides an improved moisture barrier, and adds body for easier handling. This finish, as well as our CT Yellow, G10E and Gilt Edge finishes is compatible with 100% polyester, 100% pure epoxy, modified silicone, and standard general purpose clear baking varnishes.

*Special finishes available on request

Electrical Insulation Tapes

Typical Construction Data

Style No	Thickness	Width		Warp Total Ends*	Filling	
		Inches	mm		Picks/Inch*	Picks/cm
Type "A" Medium Weave						
44-72A	.004"	1/2"	12.7	26	26	10.2
46-72A	.10mm	3/4"	19.1	37	26	10.2
48-72A		1"	25.4	49	26	10.2
412-72A		1 1/2"	38.1	73	26	10.2
54-36A	.005"	1/2"	12.7	25	26	10.2
56-36A	.13mm	3/4"	19.1	37	26	10.2
58-36A		1"	25.4	49	26	10.2
512-36A		1 1/2"	38.1	71	26	10.2
74-36A	.007"	1/2"	12.7	25	26	10.2
76-36A	.18mm	3/4"	19.1	37	26	10.2
78-36A		1"	25.4	49	26	10.2
712-36A		1 1/2"	38.1	71	26	10.2
104-36A	010"	1/2"	12.7	42	18	7.1
106-36A	.25mm	3/4"	19.1	66	18	7.1
108-36A		1"	25.4	86	18	7.1
1012-36A		1 1/2"	38.1	132	18	7.1
156-36A	015"	3/4"	19.1	19	16	6.3
158-36A	.38mm	1"	25.4	26	16	6.3
208-36A	020"	1"	25.4	45	15	5.9
2012-36A	.51mm	1 1/2"	38.1	68	15	5.9
Type "B" Tight Weave						
44-72B	.004"	1/2"	12.7	26	30	11.8
46-72B	.10mm	3/4"	19.1	37	30	11.8
48-72B		1"	25.4	49	30	11.8
412-72B		1 1/2"	38.1	73	30	11.8
54-36B	.005"	1/2"	12.7	25	33	12.9
56-36B	.13mm	3/4"	19.1	37	33	12.9
58-36B		1"	25.4	49	33	12.9
512-36B		1 1/2"	38.1	71	33	12.9
74-36B	.007"	1/2"	12.7	25	33	12.9
76-36B	.18mm	3/4"	19.1	37	33	12.9
78-36B		1"	25.4	49	33	12.9
712-36B		1 1/2"	38.1	71	33	12.9
104-36B	010"	1/2"	12.7	42	22	8.6
106-36B	.25mm	3/4"	19.1	66	22	8.6
108-36B		1"	25.4	86	22	8.6
Type "M" MIL-Y-1140 ECC-B						
34-72M	.003"	1/2"	12.7	29	42	16.5
36-72M	.08mm	3/4"	19.1	45	42	16.5
38-72M		1"	25.4	62	42	16.5
54-36M	.005"	1/2"	12.7	26	38	14.9
56-36M	.13mm	3/4"	19.1	38	38	14.9
58-36M		1"	25.4	51	38	14.9
74-36M	.007"	1/2"	12.7	26	38	14.9
76-36M	.18mm	3/4"	19.1	38	38	14.9
78-36M		1"	25.4	51	38	14.9

* +/-2

Special constructions and widths are available by request.
Tapes are manufactured in widths of 1/4" (6.4mm) to 12" (304.8mm)
and thicknesses of .003" (.08mm) to .025" (.64mm).

Polyester-Glass and 100% Polyester

Polyester-Glass Heat Shrink Tape

These tapes are selvage edge tapes that are constructed with polyester yarn in the warp direction and fiberglass yarn in the filling direction. Shrinkage will occur in the longitudinal direction in order to have a very tight wrap. Sharp corners and curves can be wound without the tape buckling or puckering and the correct overlap can be maintained since the tape will not shrink in the transverse direction.

100% Polyester Heat Shrink Tape

Polyester yarn is used in both the warp and filling direction of these selvage edge tapes. Very sharp corners and compound curves can be wound without buckling or puckering. A very tight wrap is obtained since this tape shrinks in both the longitudinal and transverse directions.



Typical Construction Data

Style No	Thickness	Width		Warp Total Ends*	Filling	
		Inches	mm		Picks/Inch*	Picks/cm
Polyester-Glass Heat Shrink Tape						
46-72PG	.004"	3/4"	19.1	37	37	14.6
48-72PG	.10mm	1"	25.4	49	37	14.6
56-36PG	.005"	3/4"	19.1	37	37	14.6
58-36PG	.13mm	1"	25.4	49	37	14.6
512-36PG		1 1/2"	38.1	70	37	14.6
76-36PG	.007"	3/4"	19.1	37	37	14.6
78-36PG	.18mm	1"	25.4	49	37	14.6
712-36PG		1 1/2"	38.1	70	37	14.6
100% Polyester Heat Shrink Tape						
54-36P	.005"	1/2"	12.7	25	37	14.6
56-36P	.13mm	3/4"	19.1	37	37	14.6
58-36P		1"	25.4	49	37	14.6
100% Polyester Heat Shrink Tape (Tie Tape)						
302-720P	.025"	1/4"	6.4	14	22	8.7
304-360P	.64mm	1/2"	12.7	28	22	8.7
306-360P		3/4"	19.1	40	22	8.7

* +/-2

Special constructions and widths are available by request.
Tapes are manufactured in widths of 1/4" (6.4mm) to 12" (304.8mm) and thicknesses of .003" (.08mm) to .025" (.64mm).

Shrinkage Data

Polyester and polyester-glass tapes can be shrunk with the application of a heat gun, in an oven or autoclave, or they can be shrunk during the dip and bake cycle. The actual shrinkage that you require will dictate which method you should choose. With 100% polyester tapes, the amount of overlap (especially on curves) will need to be formulated by your engineering department so that the correct buildup can be maintained.

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