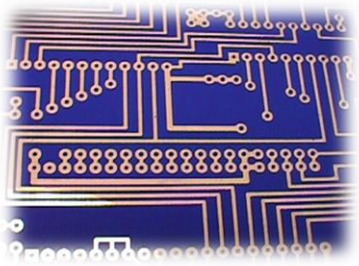
agy
strength in materials

Product Technical Specification Sheet

Y-130 – L- Glass® Yarns



L-Glass® yarns are typically used for the manufacture of high performance glass fiber fabrics. L-Glass yarns are produced using a proprietary glass composition, designed for high speed, low loss printed circuit board applications requiring low dielectric constant and low dissipation factor. In bulk form, L-Glass dielectric constant is 4.8 and dissipation factor is 0.003 (both properties measured at 10 GHz).

General Product Specifications

Product Information

Product	LCE255	LCDE340	LCD510	LCD1020	LCC1360	LCBC1700	LCBC3400	LCBC4250
Glass Type	L	L	L	L	L	L	L	L
Filament Diameter - micron	7	6	5	5	4.5	4	4	4
Binder	620-1	620-1	620-1	620-1	620-1	620-1	620-1	620-1
Bobbin	7636	7636	7636	7636	7636	7636	7636	7636
Plies	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0
Nominal Yield - yd/lb	25,500	34,000	51,000	102,000	136,000	170,000	340,000	425,000
Tex - g/1000 m	19.45	14.59	9.73	4.86	3.65	2.92	1.46	1.17
Tex tolerance +/-	1.56	1.17	0.78	0.29	0.29	0.23	0.23	0.18
Nominal Solids %	2	2.1	1.9	2.5	2.55	2.6	3	3
Solids Tolerance +/-	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6
Nominal Twist TPI (TPM)	1.0Z (Z40)	1.0Z (Z40)	1.0Z (Z40)	1.0Z (Z40)	1.0Z (Z40)	1.0Z (Z40)	1.0Z (Z40)	1.0Z (Z40)
Twist Tolerance +/- TPI (TPM)	0.3 (12)	0.3 (12)	0.3 (12)	0.3 (12)	0.3 (12)	0.3 (12)	0.3 (12)	0.3 (12)
Max. Broken Filaments*	10	10	10	10	10	10	10	10
Minimum Tensile - lb (N) *Average of 5 tests*	1.9 (8.3)	1.5 (6.8)	1.1 (5.0)	.5 (2.2)	.4 (1.8)	.3 (1.4)	.2 (1.0)	.16 (1.0)

**broken filaments based on average 360° check.*

Nominal Product Characteristics (For reference only, not specified or controlled)

Average Bare Glass Tensile - lb (N)*	3.03 (13.48)	2.4 (10.7)	1.7 (7.6)	0.8 (3.8)	0.65 (2.89)	0.65 (2.89)	TBD (TBD)	TBD (TBD)
Approximate Yarn Diameter - in (mm)	0.0065 (0.165)	0.0054 (0.137)	0.0048 (0.122)	0.0033 (0.085)	0.0030 (0.076)	0.0025 (0.064)	0.0020 (0.051)	0.002 (0.035)

**Reflects average tensile per bobbin*

Packaging Information

Bobbin	7636	7636	7636	7636	7636	7636	7636	7636
Package Weight - lb (kg)	3.0 (1.36)	3.0 (1.36)	1.5 (.67)	2.0 (0.9)	0.8 (.36)	0.5 (.22)	0.35 (.16)	0.35 (.16)
Min bobbin Weight - lb (kg)	.50 (.22)	.50 (.22)	.25 (.11)	.25 (.11)	.25 (.11)	.25 (.11)	.25 (.11)	.25 (.11)
Metered Bobbin Length - yd (m)	74,500 (68,123)	100,000 (91,440)	70,950 (64,875)	191,800 (175,400)	98,940 (90,470)	77,350 (70,730)	119,000 (108,800)	148,000 (135,331)
Metered Ratio	75%	75%	75%	65%	50%	50%	50%	50%

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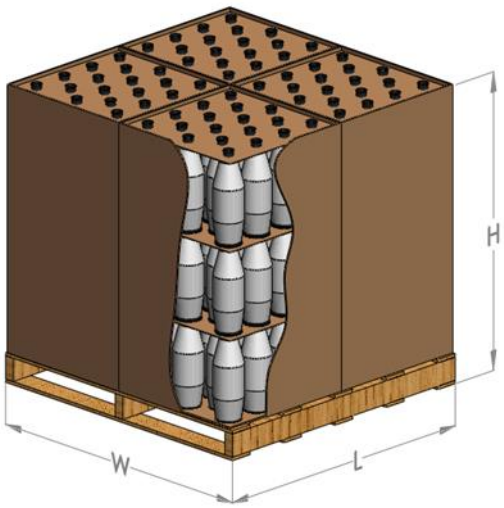
Nominal Packaging Dimensions

Bobbin	Packaging	Bobbins / Layer	Layers / Carton	Cartons / Pallet	Bobbins / Pallet	L-in (cm)	W-in (cm)	H-in (cm)
7636	Wood	18	3	4	216	45.5 (115.6)	45.5 (115.6)	45 (114.3)

WOOD



Storage, Shelf Life and Handling

Storage and Shelf Life:

AGY recommends storing the materials in accordance with appropriate safety considerations, away from exposure to the elements and at 65-80F (18-27C) and 50-70% humidity. If the materials are stored under these conditions, they are stable, non reactive and will not degrade or exhibit negative characteristics for at least 3 years from the date of manufacture. Unused, unopened product older than this is likely still in good condition , however careful evaluation is recommended. Prior to use, pallets should be placed in the production area and any plastic wrap removed for a minimum of 24 hours to allow the material to acclimate to the processing environment. Special care should be given to pallets being moved from a cold environment into a warm, humid area as condensation may occur and this additional moisture can negatively impact the runability of the material, however, once the material has acclimated, this will no longer be an issue.

For product traceability reasons, the pallet label should be recorded or retained.

Handling:

Fiberglass products process best if temperature and humidity are controlled, primarily because this will help to control the buildup of static electricity, fuzz and fly. AGY recommends that the material be run at 70 +/- 5 degrees F and 60 +/- 5% RH.

Test Methods and Certificates

A copy of test methods and or a certificate of conformity may be issued upon request.

Packages will be firmly and evenly wound on the bobbin, and free from defects in workmanship. AGY accepts no responsibility for damaged material that shows any signs of physical abuse.

For additional product information, refer to PTS M710

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