



**CUSTOMER
ACCEPTANCE
STANDARD**

No.: TP-33
Date: 13-May-04
Supersedes: 12-Feb-02
Page: Page 1 of 3

**MULTIPLE END FIBERGLASS YARN WOUND ON SERVING PACKAGES
FOR MAGNET WIRE INDUSTRY**

I. DESCRIPTION

Multiple-End Fiberglass Yarn is made up of multiple ends Continuous Filament E-Glass Fiberglass wound onto a serving spool.

II. USE

The "Multiple End All Glass" yarns are primarily used in magnet wire applications.

III. AVAILABLE PRODUCTS, PHYSICAL PROPERTIES AND PACKAGES

A. Available All Glass Yarns

PRODUCT	NOM. YDS/LB ¹ (W-07EA)*	NOM. TPI	APPROX DIAMETE R INCHES ² (D-02EA)*	APPROX BUILDUP INCHES ² (D-02EB)*	MIN BREAK STRENGTH (LBS) ³
ECD 900 1/0	88290	1.0Z ± 0.3	0.0033"	0.0016"	0.6 lbs.
ECD 900 1/2	44145	2.0S ± 0.6	0.0049"	0.0027"	1.2 lbs.
ECD 450 1/0	44190	1.0Z ± 0.3	0.0048"	0.0026"	1.3 lbs.
ECD 450 1/2	22140	2.0S ± 0.6	0.0074"	0.0042"	2.6 lbs.

1. To calculate Yardage Limits when multiple ends of a product are offered on a package, divide the nominal shown by the number of ends supplied on the package. This yardage will fall within a +/- 10% range.
2. These values are given only as a guide to be used in selection of products for a particular end use. The customer must satisfy himself that the products have sufficient average properties and sufficiently low variability to meet the intended end use.
3. Breaking strength is a theoretical calculation based upon the single end break strength and is provided for information only.

* Owens Corning Test Methods - Copies are available upon request.

B. Available Packages and End Count

PRODUCT	5051 / 5052 ENDS
ECD 900 1/0 1.0Z	4-24, 32, 40
ECD 900 1/2 2.0S	4-24, 32, 40
ECD 450 1/0 1.0Z	4-24, 32, 40
ECD 450 1/2 2.0S	4-24, 32, 40

NOTES: Package 5051 & 5052 are plastic serving.

This specification is subject to change without notice.



CUSTOMER ACCEPTANCE STANDARD

No.: TP-33
Date: 13-May-04
Supersedes: 12-Feb-02
Page: Page 2 of 3

Industry 'standard' end counts are available, other special request may / may not be available.
Trigger ends are available upon customer request.

IV. WORKMANSHIP AND VISUAL DEFECTS

A. Workmanship

1. The packages shall be firm, smooth, evenly wound packages of all glass yarns
2. Packages shall be built firmly with a minimum of bulges, dips or waves
3. Packages shall be wound with sufficient tension so the yarn will be tight on the tube but not so tight as to change the inside diameter or deflect the flanges
4. Bands of yarn shall lay smooth and flat with uniform close spacing
5. Wax treated tubes shall be employed
6. Tying in the ends of yarn around the tube shall start the package. The finishing ends shall be taped to the package by a pressure sensitive tape approximately 1/4" x 3/4".

B. Visual Defects - Visual defects are defined as those defects, which are visible to the unaided eye.

Packages containing the following defects are rejectable

1. Yarn improperly centered on tube
2. Improper splicing or knotting
3. Damaged packages resulting from blows or abrasions
4. Rough winding or improper spacing
5. Soiled or dirty yarn
6. Packages containing fuzz balls and/or entrapped waste
7. Packages having one or more ends over side
8. Packages having loose tubes
9. Incorrect number of ends

V. PACKAGING AND IDENTIFICATION

A. Packaging

1. Available Packages and Dimensions

	PACKAGE	
	5051	5052
Type Package	Plastic Serving	Plastic Serving
Type Tube	Plastic	Plastic
Inside Diameter *	1.620" – 1.625"	1.620" – 1.625"
Length	3 17/32" +/- 1/64"	5.8" +/- 1/64"
Traverse	3"	5.25"
Waywind	Parallel	Parallel
Maximum O.D.	5 15/16"	5 15/16"
Minimum O.D.	4"	4"
Approx. Net Wt / Pkg.	3.5 lbs.	5.6 lbs.

Notes:

A minimum of 90% of the packages shall be at the stated maximum O.D. within a tolerance of +0", -1/8". A maximum of 10% of the packages may be between the minimum O.D. to within 1/8" of the maximum O.D. Packages in this category in excess of 10% are rejectable.

This specification is subject to change without notice.



CUSTOMER ACCEPTANCE STANDARD

No.: TP-33
Date: 13-May-04
Supersedes: 12-Feb-02
Page: Page 3 of 3

* ID is for cardboard core in plastic part. Tolerances for all paper tubes:

LENGTH	+/- 1/64"
I.D.	+/- 0.003"

Cardboard core tubes are purchased to the above tolerances. Slight changes to the physical dimensions of the tubes may result through handling, winding or shipping. For these reasons, these dimensions are provided for information only.

2. Cartons and Pallets

PACKAGENO.	5051	5052
Carton	T-354	T-354
Pkg. / Ctn.	15	9
Ctn. / Pallet	24	24
Pkg. / Pallet	360	216
Avg. Net Wt / Pallet (lbs.)*	1260	1210

Each package shall be placed unwrapped in individual cells within the carton.

*For information only

B. Identification

1 Tube Identification

All serving packages shall have sticker affixed to one flange (including, but not limited to; Product ID, machine number, spindle number, employee ID)

2 Glass-Polyester Color Identification

To differentiate from the standard fibrous glass package, the finishing ends shall be adhered to the package with a small piece of colored tape

3 Carton Content Label

A content label shall adequately identify each carton.