



# CUSTOMER ACCEPTANCE STANDARD

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Date: 22-Nov-04  
Supersedes: 29-Jun-95  
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## LOW YIELD TEXTURIZED YARNS

### I. DESCRIPTION

Fiberglass low yield texturized yarn is a white, non-lustrous, lofted yarn with a uniformly disoriented but essentially continuous filament structure. These yarns are bulky, pliable and are, with the exception of the lubricants, inorganic, incombustible and will neither expand nor contract with moisture changes.

### II. USE

Low yield texturized yarns can be woven or braided for insulation, shielding and sealing applications. Use at temperatures exceeding 1100 degrees F is not recommended.

### III. YARN NOMENCLATURE

#### US Customary

#### International (SI)

#### ET G-1.40

E- Electrical glass formulation  
T- Texturized filaments  
G- Filament diameter (See Table 1)  
1.40- Yards per pound divided by 100

#### ET 9 3543

E- Electrical glass formulation  
T- Texturized filaments  
9- Filament diameter (See Table 1)  
3543- grams per 1000 meters of yarn

Throughout history, the actual yardage or tex of yarn products has often been shifted from the actual yield provided in the product name. Therefore, the name is only used as a descriptor. The table in section V. must be utilized to obtain the actual bare glass yield of a yarn product.

### IV. GENERAL INFORMATION

Filament Designation US Units	Filament Designation SI Units	Range for Average Filament Diameter			
		Minimum Inches	Maximum Inches	Minimum mm	Maximum mm
DE	6.0	0.00023	0.000269	5.84	6.85
G	9.0	0.00035	0.000399	8.89	10.15



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## V. AVAILABLE PRODUCTS AND BARE GLASS YIELD PROPERTIES

Product Name*	Product Name (SI) *	Sizing	Bare Glass Yield						Minimum Tensile	
			Nominal Yds/ lb	Minimum Yds/ lb	Maximum Yds/ lb	Nominal Tex	Maximum Tex	Minimum Tex	Lbs	Newtons
ETDE 1.75	ET6-2835	None	173	164	182	2867	3025	2726	50	222.5
<b>ETDE 1.75</b>	<b>ET6-2835</b>	<b>Acrylic</b>	<b>168</b>	<b>159</b>	<b>177</b>	<b>2953</b>	<b>3120</b>	<b>2803</b>	<b>50</b>	<b>222.5</b>
ETDE 2.25	ET6-2205	None	217	203	231	2286	2444	2147	35	155.8
<b>ETDE 2.25</b>	<b>ET6-2205</b>	<b>Acrylic</b>	<b>214</b>	<b>199</b>	<b>229</b>	<b>2318</b>	<b>2493</b>	<b>2166</b>	<b>35</b>	<b>155.8</b>
ETDE 3.50	ET6-1417	None	349	332	366	1421	1494	1355	30	133.5
<b>ETDE 3.50</b>	<b>ET6-1417</b>	<b>Acrylic</b>	<b>346</b>	<b>330</b>	<b>362</b>	<b>1434</b>	<b>1503</b>	<b>1370</b>	<b>23</b>	<b>102.4</b>
ETDE 4.50	ET6-1102	None	440	421	459	1127	1178	1081	25	111.3
<b>ETDE 4.50</b>	<b>ET6-1102</b>	<b>Acrylic</b>	<b>432</b>	<b>412</b>	<b>452</b>	<b>1148</b>	<b>1204</b>	<b>1097</b>	<b>17</b>	<b>75.7</b>
ETDE 6.0	ET6-827	None	589	549	629	842	904	789	15	66.8
<b>ETDE 6.0</b>	<b>ET6-827</b>	<b>Acrylic</b>	<b>564</b>	<b>534</b>	<b>594</b>	<b>880</b>	<b>929</b>	<b>835</b>	<b>12</b>	<b>53.4</b>
ETDE 9.0	ET6-551	None	878	832	924	565	596	537	10	44.5
<b>ETDE 10.0</b>	<b>ET6-496</b>	<b>Cellosize</b>	<b>1030</b>	<b>995</b>	<b>1065</b>	<b>482</b>	<b>499</b>	<b>466</b>	<b>19</b>	<b>84.5</b>
ETDE 11.60	ET6-428	None	1205	1150	1260	412	431	394	16	71.2
<b>ETDE 11.60</b>	<b>ET6-428</b>	<b>Cellosize</b>	<b>1193</b>	<b>1138</b>	<b>1248</b>	<b>416</b>	<b>436</b>	<b>397</b>	<b>16</b>	<b>71.2</b>
ETDE 25.0	ET6-198	Cellosize	2371	2311	2431	209	215	204	7	31.1
<b>ETG 1.40</b>	<b>ET9-3543</b>	<b>None</b>	<b>135</b>	<b>127</b>	<b>143</b>	<b>3674</b>	<b>3906</b>	<b>3469</b>	<b>55</b>	<b>244.8</b>
ETG 1.75	ET9-2835	None	162	150	174	3062	3307	2851	50	222.5
<b>ETG 1.75</b>	<b>ET9-2835</b>	<b>Acrylic</b>	<b>161</b>	<b>148</b>	<b>174</b>	<b>3081</b>	<b>3352</b>	<b>2851</b>	<b>50</b>	<b>222.5</b>
ETG 2.25	ET9-2205	Acrylic	222	206	238	2234	2408	2084	40	178.0
<b>ETG 2.75</b>	<b>ET9-1804</b>	<b>Acrylic</b>	<b>250</b>	<b>235</b>	<b>265</b>	<b>1984</b>	<b>2111</b>	<b>1872</b>	<b>30</b>	<b>133.5</b>
ETG 3.50	ET9-1417	None	362	335	389	1370	1275	1481	30	133.5
<b>ETG 3.50</b>	<b>ET9-1417</b>	<b>Acrylic</b>	<b>257</b>	<b>334</b>	<b>380</b>	<b>1930</b>	<b>1485</b>	<b>1305</b>	<b>25</b>	<b>111.3</b>
ETG 4.50	ET9-1102	None	448	415	481	1107	1195	1031	25	111.3
<b>ETG 4.50</b>	<b>ET9-1102</b>	<b>Acrylic</b>	<b>447</b>	<b>409</b>	<b>485</b>	<b>1110</b>	<b>1213</b>	<b>1023</b>	<b>20</b>	<b>89.0</b>
ETG 6.00 12"	ET9-827	Acrylic	594	563	625	835	881	794	15	66.8
<b>ETG 6.00 8"</b>	<b>ET9-827</b>	<b>Acrylic</b>	<b>594</b>	<b>563</b>	<b>625</b>	<b>835</b>	<b>881</b>	<b>794</b>	<b>15</b>	<b>66.8</b>
ETG 9.00	ET9-551	None	938	906	970	529	548	511	10	44.5
<b>ETG 9.00</b>	<b>ET9-551</b>	<b>Acrylic</b>	<b>927</b>	<b>867</b>	<b>987</b>	<b>535</b>	<b>572</b>	<b>503</b>	<b>10</b>	<b>44.5</b>

Breaking Strength - The strength is expressed in pounds (newtons) per end. The minimum strengths will be the average of four breaks per package.

\* Nomenclature used for identification purposes only. Nomenclature may not indicate true yield.

This specification is subject to change without notice.



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**VI. AVAILABLE PRODUCTS AND ADDITIONAL PHYSICAL PROPERTIES**

Product Name	Tex Designation	Sizing	Loss on Ignition (% by weight)		
			Nominal	Minimum	Maximum
All ETDE & ETG	All ET6 & ET9	None	0.43	0.16	0.70
<b>All ETDE</b>	<b>All ET6</b>	<b>Acrylic</b>	<b>1.96</b>	<b>1.16</b>	<b>2.76</b>
All ETG	All ET9	Acrylic	1.92	1.12	2.72
<b>ETDE 10.0/11.6</b>	<b>ET6 10.0/11.6</b>	<b>Cellosize</b>	<b>1.13</b>	<b>0.84</b>	<b>1.42</b>
ETDE 25.0	ET6 25.0	Cellosize	1.30	0.95	1.65

**TEST METHODS FOR PHYSICAL PROPERTIES**

The physical properties as listed in this specification shall be tested according to the methods as specified in the reference listed below:

1. Yards per Pound (Linear Density - TEX) - W-07Ea-T\*
2. Ignition Loss - W-07Ea-T\*
3. Breaking Strength - S-01Hg\*

\* Owens Corning Test Methods. Copies available upon request.

**VII. VISUAL PROPERTIES**

- A. The product shall be free of the following internal or external (depending where found) characteristics.

Entrapped Waste	Dirt, Grease or Oil
Splices, knots or wrap-ins	Mixed Yarns**
Damaged Yarn*	Cut Tubes
Untexturized Yarn	Water Spots
Soft packages	Bad Builds
Fuzz balls (broken filaments) greater than ¼"	

\* Advanced Glassfiber Yarns, LLC accepts no responsibility for any damaged or sloughed material that is contained in a carton that shows any evidence of physical abuse. Any carton showing evidence of having been opened from the bottom will be considered as having been mishandled by the customer. Such damage or questions of damage is the responsibility of the carrier as, according to Advanced Glassfiber Yarns, LLC terms of sale, delivery to the carrier constitutes delivery to the customer. Advanced Glassfiber Yarns, LLC accepts no responsibility for any damage occurring in a customer's plant.

\*\*In the event that Advanced Glassfiber Yarns, LLC or the customer has reason to suspect that a shipment may contain MIXED YARN, the party first suspecting such condition will notify the other, and Advanced Glassfiber Yarns, LLC assumes responsibility for initiating appropriate action. The use of the suspect material should be discontinued pending an investigation of the facts.



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## B. Transfer Tails

Each package start-up band is removed and 1½ to 3 wraps are put back on the package forming a transfer tail. Transfer tails will be provided for all products except ETG1.40. Packages without transfer tails are shipped without start-up bands.

Note: For all products provided with transfer tails, each carton may contain a maximum of 4 packages without transfer tails.

## VIII. PACKAGING

The products are available on package 4002 that has the following dimensions and requirements.

Package Number	4002
Type package	Paper tube
Inside diameter	3.628 ± 0.10"
Tube length	13" ± 0.31"
Type build	Straight edge
Package weight	3.0 lbs (1.4kg) Min; 25lbs (11.4kg) max
Maximum outside diameter	13"
Carton	T-405
Length	51"
Width	38.5"
Height	57.5"
Packages/layer	12
Layers/carton	3
Packages/carton	36
Cartons/pallet	1
Pallet size	38.5" x 51.5"

## IX. IDENTIFICATION

Tube Identification	Each tube will have a label that will include the product identification, Julian date, shift and winder identification number.
Product Identification	Each product shall be assigned and appropriate "Type" designation.
Carton Identification	A content label shall adequately identify each carton.