

**TENAX® G30-700 24K HTA-7D F402**

**Tenax® G30-700** is a family of high strength high strain carbon fibers for use as reinforcements in high performance composites. These fibers are produced from poly-[acrylonitrile] (PAN) precursor and are surface treated to promote adhesion to organic matrix polymers. Sizing materials are designed to aid in handling. G30-700 24K HTA-7D F402 is not an aerospace grade, and Toho Tenax reserves the right to upgrade manufacturing processes and raw materials without notice, in compliance with our emphasis on continuous product improvement.

<b>Typical Fiber Properties (Lot average)</b>		<b>Inch-Pound</b>	<b>SI</b>
Tensile Strength*		740 x 10 <sup>3</sup> psi	5,100 MPa
Tensile Modulus*		35.0 x 10 <sup>6</sup> psi	241 GPa
Elongation*		2.1 %	2.1 %
Density		0.065 lb/in <sup>3</sup>	1.79 g/cm <sup>3</sup>
Linear density with sizing	F402		1,656 tex 1.656 g/m
Yield with sizing	F402	300 yd/lb	600 m/kg
Sizing level w/w	F402	1.6 %	1.6 %
<b><u>Yarn / Tow Characteristics</u></b>			
Filament Diameter		7.0 x 10 <sup>-6</sup> m	
Twist		Never Twisted	
Tow type		Wide band	
Equivalent Yarn Cross Section		14.1 x 10 <sup>-4</sup> in <sup>2</sup> (0.91 mm <sup>2</sup> ) Nominal	
For Technical Assistance Contact		Toho Tenax America, Inc. 18552 MacArthur Boulevard, Suite 325 Irvine, CA 92612-1232, USA (949) 474-3278 Ext 25	

\* Toho Tenax Impregnated Strand Test Method. Based on JIS R7601

To the best of our knowledge the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy or completeness of such information. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible long-term adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones which exist. Final determination of the suitability of any information or product for the use contemplated by any user, the matter of that use and whether any infringement of patents is the sole responsibility of the user. We recommend that anyone intending to rely on any recommendation or to use any equipment or processing technique or material mentioned in this publication should satisfy himself as to such suitability and that he can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturers' or suppliers' current instructions for handling each material they use.

**RECOMMENDED STORAGE AND SHELF LIFE**

**A. HTA Carbon Fiber Properties**

Filament tensile strength, modulus of elasticity, coefficient of expansion, electric and thermal conductivities and yield are inherent properties of the HTA fiber and have indefinite shelf life.

**B. HTA Carbon Fiber Processing**

Typically, the original processing characteristics of HTA yarn will be essentially constant for at least one year from date of delivery. The product should be stored indoors. The recommended storage conditions are 40°F-77°F (5°C-25°C) and less than 50 percent RH. Direct exposure to sunlight or rain should be avoided. The shrink wrap should not be removed until immediately prior to use.

If the roving is stored at high temperatures and/or high humidity conditions, it may become difficult to process. Roving that stiffens during storage should still be useable. However, a thorough evaluation of the processing characteristics (e.g., resin wet out, spreadability) relative to the customer's operation is strongly recommended.

**STANDARD PACKAGING AND SPOOL BUILD**

Spool designation	H	M
Net Weight (lb)	8.82	13.25
Tube Length (in)	11	11
Tube I.D. (in)	3	3
Tube weight (oz)	6	6
Stroke (in)	10	10
External dia. (in)	6.4±0.3	7.6±0.3

"H" and "M" spools are standard. Other spool sizes and center pull packages may be available to special order. Please consult your sales representative.

Spool designation	H	M
Nominal length (yd)	2,640	3,960
No. spools per carton	6	6
Carton weight (lb)	52.9	79.4
Carton dimensions (in)	21.7 x 14.6 x 11.6 (H)	24.8 x 20.1 x 11.6 (H)
Pallet dimensions (in)	44.9 x 31.9 x 37.2 (H)	44.9 x 31.9 x 37.2 (H)
Approx. Pallet weight (lb)	635	950

Standard full pallet contains 12 cartons, 14 cartons per pallet is maximum.

Height of pallet included in dimensions. The pallet size may be changed without notice.

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