

HTR40 F22 24K 1550tex

Tenax®-A HTR40 F22 24K 1550tex is a high strength carbon fiber for use in today's most demanding applications, particularly where cost performance is paramount. This is not an aerospace grade, and Toho Tenax reserves the right to upgrade manufacturing processes/sites and raw materials without notice, in compliance with our approach on continuous product improvement. The fiber is produced from poly-[acrylonitrile] (PAN) precursor and is surface treated to promote adhesion to epoxy matrix polymers. The sizing materials are designed to aid in handling.

Typical Fiber Properties (Lot Average)		Inch-Pound	SI
Tensile strength*		650 x 10 ³ psi	4,482 MPa
Tensile modulus*		34 x 10 ⁶ psi	235 GPa
Elongation*		1.9 %	1.9 %
Density		0.066 lb/in ³	1.84 g/cm ³
Linear density without sizing	F22		1,550 tex 1.55 g/m
Yield without sizing	F22	320 yd/lb	645 m/kg
Sizing level w/w	F22	1.0 %	1.0 %
<u>Yarn / Tow Characteristics</u>			
Filament Diameter		7 x 10 ⁻⁶ m. Nominal	
Twist		Never Twisted	
Equivalent Yarn Cross Section		13.35 x 10 ⁻⁴ in ² (0.86 mm ²) 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 ASTM 4018

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. HTR40 Carbon Fiber Properties

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

B. HTR40 Carbon Fiber Processing

Typically, the original processing characteristics of the 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
Net Weight (lb)	8.5
Tube Length (in)	11
Tube I.D. (in)	3
Tube weight (oz)	6
Stroke (in)	10
External dia. (in)	6.4 ±0.2

All spools are splice free. "H" spool is standard for HTR40 24K 1550tex. Other spool sizes may be available to special order. Please consult your sales representative.

Spool designation	H
Nominal length (yd)	2,833
Packaging Type	GAYLORD
No. spools per layer	46
No. of layers	3
Weight per layer (lb)	417
Carton dimensions (in)	44 x 44 x 34 (112 cm x 112 cm x 87 cm)
Pallet dimensions (in)	44 x 44 x 38 (H)
Approx. Pallet net weight (lb)	1,250

The pallet size may be changed without notice.

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