

## Typical Properties of Carbon Fiber

**PYROFIL™**

	Type	Filament Count	Filament Diameter	Yield	Tensile Strength		Tensile Modulus		Elongation	Density
			μm		mg/m	GPa	Ksi	GPa		
HT Series	TR 30S 3L	3,000	7	200	4.12	600	235	34	1.8	1.79
	TR 50S 6L	6,000	7	400	4.90	710	235	34	2.1	1.82
	TR 50S12L	12,000	7	800						
	TR 50S15L	15,000	7	1,000	5.00	720	235	34	2.1	1.82
	TR 50D12L	12,000	7	800						
	TRH50 18M	18,000	6	1,000						
	TRH50 30M Note 1)	30,000	6	1,670	5.60	810	255	37	2.2	1.82
	TRH50 60M	60,000	6	3,200	4.83	700	250	36	1.9	1.81
	TRW40 50L	50,000	7	3,750	4.12	600	240	35	1.7	1.81
IM Series	MR 60H 24P	24,000	5	960	5.68	820	280	41	2.0	1.81
	MR 70 12P	12,000	5	415	7.00	1,010	324	47	2.2	1.82
HM Series	MS 40 12M	12,000	6	600	4.41	640	340	49	1.3	1.77
	HR 40 12M	12,000	6	600	4.41	640	375	54	1.1	1.82
	HS 40 12P	12,000	5	430	4.61	670	425	62	1.1	1.85

Note 1) All properties are tentative.

**GRAFIL™**

	Type	Filament Count	Filament Diameter	Yield	Tensile Strength		Tensile Modulus		Elongation	Density
			μm		mg/m	GPa	Ksi	GPa		
HT Series	34-700	12,000	7	800	4.83	700	234	34	2.0	1.80
		24,000	7	1,600						
	37-800	30,000	6	1,675	5.52	800	255	37	2.1	1.81
	34-600	48,000	7	3,200	4.48	650	234	34	1.9	1.80

Note) Tensile moduli are calculated based on ASTM D4018.

## MITSUBISHI CHEMICAL CORPORATION

Carbon Fiber and Composite Materials Division  
 1-1, Marunouchi 1-Chome, Chiyoda-ku, Tokyo 100-8251, Japan  
 Phone; +81- 3- 6748- 7514/ Fax; +81- 3- 3286- 1380  
 Web: <https://www.m-chemical.co.jp>

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