

Table I Rod Dimensions and Maximum Stress

Specimen	Rod #1	Rod #2	Rod #3
Color	GOLD	BLACK	SILVER
Mass (gm)	19.6	8.9	3.0
Diameter (mm)	3.99 mm	3.95 mm	4.16 mm
Actual Length (mm)	25.4 in	25.4 in	25.5 inch
Gauge Length (mm)	17.4 in	17.4 in	17.4 in
Density			
Polar Moment of Inertia $J$ (mm <sup>4</sup> )	1396.13	384.33	1460.17
Max. Shear Stress	17.6	18.01	15.53

USE  
MASS/V

Table II Angle of Twist vs. Applied Load

Specimen Load (N)	Rod #1	Rod #2	Rod #3
0			
2.5	0.15	0.74	0.25
7.5	0.54	1.59	0.83
12.5	0.95	2.76	1.44
17.5	1.35	3.86	1.05
12.5	0.97	2.85	1.50
7.5	0.57	1.71	0.90
2.5	0.17	0.60	0.30
0			