

NIST Test No: 683/282295-12
Item: 100 m Steel Tape

NIST Tape ID No.19096M

10	0 to 90	90.01175	0.00017
10	0 to 100	100.01310	0.00018

The following measurements were used to calculate the AE value:

Tension (kg)	Interval (meters)	Length (meters)	Uncertainty (meters)
10	40 to 100	60.00776	0.00012
20	40 to 100	60.02946	0.00012

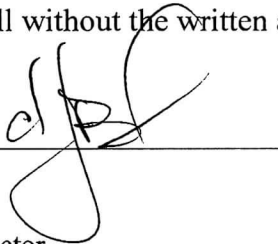
The average value of AE for the tape is 271000 Newtons with an expanded uncertainty $U(k=2)$ of 5400 Newtons, where AE is the product of the tape cross-sectional area and its Young's modulus of elasticity.

The average mass per unit length of the tape is 0.01532 kg/m with an expanded uncertainty $U(k=2)$ of 0.00006 kg/m.

The assumed coefficient of thermal expansion of the tape is $0.0000115\text{ }^{\circ}\text{C}^{-1}$ ($0.0000064\text{ }^{\circ}\text{F}^{-1}$).

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Measurements were made by Chris Blackburn.



For the Director,
National Institute of Standards and Technology



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Order No: EMAIL
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