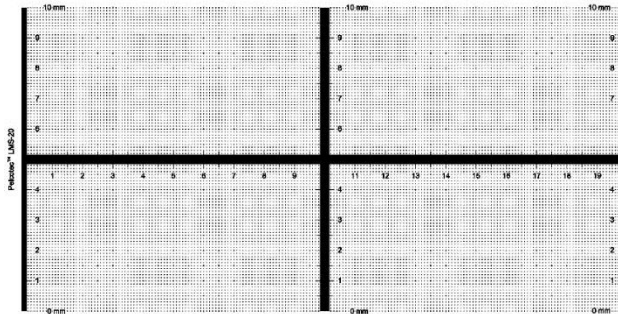


AISthesis Products, Inc.

Advanced Imaging Products for Nanotechnology, Engineering and Life Sciences

Certificate of Calibration

Pelcotec™ LMS-20 Low Magnification Silicon Calibration Standard



Product Number: LMS-20C

Product Description: 20 x 10mm Pelcotec™ 1mm Low Magnification Calibration Standard

Product Serial Number: TJ04-028

The accuracy of these products was determined by reference comparison to working standards traceable to the National Institute of Standards and Technology (NIST), Test No. 861/280822-11.

Horizontal

Line length	Certified distance	Standard Deviation (1σ)	Total expanded uncertainty (3σ)
0-1 mm	1.00 mm	±0.10%	±0.30%
0-2 mm	2.00 mm	±0.10%	±0.30%
0-3 mm	3.00 mm	±0.10%	±0.30%
0-4 mm	4.00 mm	±0.10%	±0.30%
0-5 mm	5.00 mm	±0.10%	±0.30%
0-6 mm	6.00 mm	±0.10%	±0.30%
0-7 mm	7.00 mm	±0.10%	±0.30%
0-8 mm	8.00 mm	±0.10%	±0.30%
0-9 mm	9.00 mm	±0.10%	±0.30%
0-10 mm	10.00 mm	±0.10%	±0.30%
0-11 mm	11.00 mm	±0.10%	±0.30%
0-12 mm	12.00 mm	±0.10%	±0.30%
0-13 mm	13.00 mm	±0.10%	±0.30%
0-14 mm	14.00 mm	±0.10%	±0.30%
0-15 mm	15.00 mm	±0.10%	±0.30%
0-16 mm	16.00 mm	±0.10%	±0.30%
0-17 mm	17.00 mm	±0.10%	±0.30%
0-18 mm	18.00 mm	±0.10%	±0.30%
0-19 mm	19.00 mm	±0.10%	±0.30%
0-20 mm	20.00 mm	±0.10%	±0.30%
0-0.1 mm	0.10 mm	±0.47%	±1.41%
0-0.2 mm	0.20 mm	±0.29%	±0.88%
0-0.3 mm	0.30 mm	±0.15%	±0.30%

0-0.4 mm	0.40 mm	±0.16%	±0.59%
0-0.5 mm	0.50 mm	±0.10%	±0.44%
0-0.6 mm	0.60 mm	±0.10%	±0.49%
0-0.7 mm	0.70 mm	±0.10%	±0.30%
0-0.8 mm	0.80 mm	±0.10%	±0.30%
0-0.9 mm	0.90 mm	±0.10%	±0.30%
0-0.01 mm	0.010 mm	±0.47%	±1.40%
0-0.02 mm	0.020 mm	±0.23%	±0.70%
0-0.03 mm	0.030 mm	±0.16%	±0.47%
0-0.04 mm	0.040 mm	±0.10%	±0.30%
0-0.05 mm	0.050 mm	±0.10%	±0.30%
0-0.06 mm	0.060 mm	±0.10%	±0.30%
0-0.07 mm	0.070 mm	±0.10%	±0.30%
0-0.08 mm	0.080 mm	±0.10%	±0.30%
0-0.09 mm	0.090 mm	±0.10%	±0.30%

Vertical (Center Line)

Line length	Certified distance	Standard Deviation (1σ)	Total expanded uncertainty (3σ)
0-1 mm	1.00 mm	±0.10%	±0.30%
0-2 mm	2.00 mm	±0.10%	±0.30%
0-3 mm	3.00 mm	±0.10%	±0.30%
0-4 mm	4.00 mm	±0.10%	±0.30%
0-5 mm	5.00 mm	±0.10%	±0.30%
0-6 mm	6.00 mm	±0.10%	±0.30%
0-7 mm	7.00 mm	±0.10%	±0.30%
0-8 mm	8.00 mm	±0.10%	±0.30%
0-9 mm	9.00 mm	±0.10%	±0.30%
0-10 mm	10.00 mm	±0.10%	±0.30%
0-0.1 mm	0.10 mm	±0.47%	±1.41%
0-0.2 mm	0.20 mm	±0.29%	±0.88%
0-0.3 mm	0.30 mm	±0.15%	±0.30%
0-0.4 mm	0.40 mm	±0.16%	±0.59%
0-0.5 mm	0.50 mm	±0.10%	±0.44%
0-0.6 mm	0.60 mm	±0.10%	±0.49%
0-0.7 mm	0.70 mm	±0.10%	±0.30%
0-0.8 mm	0.80 mm	±0.10%	±0.30%
0-0.9 mm	0.90 mm	±0.10%	±0.30%
0-0.01 mm	0.010 mm	±0.47%	±1.40%
0-0.02 mm	0.020 mm	±0.23%	±0.70%
0-0.03 mm	0.030 mm	±0.16%	±0.47%
0-0.04 mm	0.040 mm	±0.10%	±0.30%
0-0.05 mm	0.050 mm	±0.10%	±0.30%
0-0.06 mm	0.060 mm	±0.10%	±0.30%
0-0.07 mm	0.070 mm	±0.10%	±0.30%
0-0.08 mm	0.080 mm	±0.10%	±0.30%
0-0.09 mm	0.090 mm	±0.10%	±0.30%

The total expanded uncertainty includes both Type A and Type B uncertainties corrected for sample size using an appropriate Student t-factor.

Equipment used:

Instrument	Manufacturer	Serial #	Objective Lenses	NIST Certified CD/Recalibration	Repeatability
Light Microscope	Motic BA310MET	117000 0170	10x, 0.25N.A, 20x 0.4N.A. & 50X 0.55N.A. Plan Achromat.	CD-PG01- 0211/June 2015	0.07%

Dudley S Finch
Certified by

Signature

August 28th 2014
Date

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