Certificate of Calibration

Glenammer Laboratory Test Sieves

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UKAS CALIBRATION
24551

Customer:	Sample	Issued by:	Daniel Smith
Address:	Sample	Date of Issue:	30/08/2023
	Sample	Certificate No.:	CC-0156
	Sample	Calibration Technician:	Daniel Smith
	Sample	Date of Test:	30/08/2023
	Sample	Test Temperature:	20.0 °C ± 2.0 °C
Sieve:	150 Dia. x 500 µm w/w Sieve	Test Type:	Optical
Condition:	New	Test Method:	Diagonal Spot Check
Serial No.:	23080875	Expanded Uncertainty:	3.6 µm
Specification:	BS ISO 3310-1:2016	Approved Signatory:	Daniel Smith
Lab Location:	Glenammer (see above)	Signature:	

Results

Parameters	Measured Values (1)		Standard Tolerances (2)	Decision
	Warp	Weft		
Average size (3)	504.3 µm	501.4 µm	w^{a} (9) ± 16.2 µm	Accepted
Standard deviation (4)	9.3 µm	6.9 µm	≤ 30.0 µm	Accepted
Maximum size (5)	522.6 µm	515.2 µm	≤ w^{a} (9) + 80.5 µm	Accepted
Measured apertures (6)	75	75	≥ 68	Accepted
Average wire diameter (7)	307.6 µm	308.6 µm	≤ 360.0 µm AND ≥ 270.0 µm	Accepted
Measured wires (8)	75	75	≥ 10	Accepted

(1) Values are measured in two orthogonal directions labelled warp and weft.
(2) Tolerances according to BS ISO 3310-1:2016.
(3) Mean aperture size.
(4) Maximum standard deviation multiplied by coverage factor k =1.46. K is calculated in accordance with BS ISO 3310-1:2016
(5) Maximum value measured for aperture size.
(6) Total number of apertures measured.
(7) Mean wire diameter.
(8) Total number of wires measured.
(9) Nominal aperture size.

Decision Rule:

To account for measurement uncertainty, we constrain the measured values that can be considered acceptable to only values which fall within the acceptance interval for each measurement. The difference between the acceptance interval and the standard tolerances provided by BS ISO 3310-1:2016 is equal to the expanded

uncertainty of measurement reported on this certificate. The average aperture size and average wire diameter values have a double-sided acceptance interval. The standard deviation and maximum aperture size have a single sided acceptance interval. The number of measured apertures and wires do not have and associated measurement uncertainty. They are evaluated using a single sided acceptance interval which is equal to the standard tolerances. If all results are accepted, then the sieve is accepted as conforming to the specification.
Based on the above results the sieve identified above is **Accepted** as conforming to BS ISO 3310-1:2016

Calibration Methods:

The calibration of this sieve has been carried out in accordance with the procedures documented in BS ISO 3310-1:2016 using the Optical method. The sieve was sampled using the Diagonal Spot Check method. All test equipment used in this calibration is calibrated and traceable to a UKAS accredited laboratory.

Uncertainty of Measurement:

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k = 2 which for a normal distribution corresponds to a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

The results shown only relate to the item identified on this certificate.

End of Report.