EL-AC-QU-X-PLZ-420-SI121004_List of Uncertainty Budgets for Accredited Methods

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This document is supplemental to Element's Statement of Conformity Policy. The below table contains indicative uncertainty values for the test types included in Element Plzen schedule of accreditation. Uncertainty budgets at time of test may differ from the values reported in this document due to dependency on test specific parameters or changes in specimen geometry, equipment calibration, qualified staff and other contributing factors. For this reason, the values shown below should be seen as indicative rather than precise. Budgets for specific test results can be made available upon request if these are required to understand the actual risk when the statement of conformity is made.

Type of test	Test methods	Parameter	Uncertainty Value
Tensile test at ambient temperature	EL-AEE-OP-MEC-PLZ-MD102855 and EL-AEE-OP-MEC-PLZ-MD102863 (ASTM E8/E8M ASTM B557 ASTM A370, section 7-15 ASTM E21 BS 4A4 – Part 1:Section 1 & Section 2 BS EN ISO 6892-1 BS EN ISO 6892-2 BS EN 2002-1; BS EN 2002-2 BS EN 1492-2+A1 BS EN 12195-2 BS EN 818-1+A1 BS EN 1677-1+A1 BS EN 12385-1+A1 MSRR 9922:2017 RRMS 30020)	uts-lower yield 0.2%PS 0.5%Strain RoA F_{MAX}	1,38% 2,94% 6,81% 3,56% 0,65%
Tensile test elevated temperature	EL-AEE-OP-MEC-PLZ-MD102855 and EL-AEE-OP-MEC-PLZ-MD102643 (ASTM E8/E8M ASTM B557		Depending on the type of material and test temperature. Contact the laboratory for more information.

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	ASTM A370, section 7-15 ASTM E21 BS 4A4 - Part 1:Section 1 & Section 2 BS EN ISO 6892-1 BS EN ISO 6892-2 BS EN 2002-1 BS EN 2002-2 MSRR 9922:2017 RRMS 30020 BS EN 10002-5:1992)		
Tensile test at low temperature	EL-AEE-OP-MEC-PLZ-MD102855 APP F; BS EN ISO 6892-3		Depending on the type of material and test temperature. Contact the laboratory for more information.
Uniaxial creep test in tension	EL-AEE-OP-MEC-PLZ-MD27093 (BS 4A4 - Part 1:Section 3:1967 ASTM E139 ASTM E292 BS EN 2002-005 Section 17 BS EN ISO 204 MTL 120-3 MTL 144-3 BS EN 10291:2000)	UoM Rupture UoM Rupture Elongation RoA	21% on life 24% 1,6% 4,7%
Stress rupture test	EL-AEE-OP-MEC-PLZ-MD27087 (ASTM E139 ASTM E292 BS 4A4:1967, Part 1:Section 3 BS EN 2002-005, part. 16 BS EN ISO 204) ASTM F519 BS EN 10291:2000	UoM Rupture Strain	21% on Life 0,05% Strain
Brinell Hardness test	EL-AEE-OP-MEC-PLZ-MD27080 MD27091 (BS EN ISO 6506-1 BS EN ISO 6506-2 ASTM E10)		±8,1HBW

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Rockwell hardness test	EL-AEE-OP-MEC-PLZ-MD27080 (ASTM E18 BS EN ISO 6508-1 BS EN ISO 6508-2)		±1,2HRC
Vickers hardness test	EL-AEE-OP-MEC-PLZ-MD27069 (BS EN ISO 6507 BS EN ISO 9015-1 MSRR9969 ASTM E384 ASTM E92)	Micro	±5,6HV
Impact test	EL-AEE-OP-MEC-PLZ-MD27071 (BS 131 part 1); EX-AE-OP-MEC-PLZ-MD27073 (BS EN ISO 148-1 BS EN ISO 148-2 BS EN ISO 148-3); EX-AE-OP-MEC-PLZ-MD27085 (ASTM E23 ASTM A370, section 20-32 BS EN 10045-1:1990)	ASTM Above 30J ASTM Below 30J BS Above 40J BS Below 40J	±7,2% ±3J ±8,6% ±4J
Fatigue test	EL-AEE-OP-FE-PLZ-MD27089 (BS 3518, Part 1 and 3 ASTM E466 ASTM E467 ASTM E468 EN 6072); EX-AE-OP-FE-PLZ-MD27090 (ASTM E606 BS 3518 Part 1 and 3 BS 7270 GE E50TF148)	Force control Strain control	±13.3% of fatigue life ±13.7% of fatigue life
Fracture toughness test	EL-AEE-OP-FE-PLZ-MD27061 (ASTM E399 ASTM B645 BS EN ISO 12737 BS 7448:Part 1 ASTM E561 BMS 7-323)	R Curve	±1.4% of K value ±5.4% of K value
Determination of hydrogen content in	EL-AEE-OP-CH-PLZ-MD27078	Low for OH-p	± 4 ppm

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titanium and titanium alloys by thermal conductivity detection	(ASTM E1447)	High for OH-2 Low for ONH-p High for ONH-2	± 9 ppm ± 2 ppm ± 7 ppm
Determination of oxygen content in titanium and titanium alloys by infrared detection (IR)	EL-AEE-OP-CH-PLZ-MD30949 (ASTM E1409) EL-AEE-OP-CH-PLZ-MD114449 (ASTM E1409)	Low High Low High	± 99 ppm ± 165 ppm ± 71 ppm ± 89 ppm
Determination of nitrogen content in titanium and titanium alloys by thermal conductivity detection	EL-AEE-OP-CH-PLZ-MD114449 (ASTM E1409)	Low High	± 14 ppm ± 20 ppm

1 Record of Revision

Document history

Revision:	Date:	Reason for Revision:
01	26 Oct 2026	Correction of values reported for the Impact Test

Refer to Intelex revision control change details for legacy revisions and document approvers.

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