

ELEMENT MATERIALS TECHNOLOGY

TOULOUSE SAS

3 AVENUE ANDRE MARIE AMPERE

31770, COLOMIERS

FR

147019

TYPE of External Shop
INDEPENDENT

Attestation letter for Qualification on Test Methods

Dear Madam, Dear Sir,

We herewith inform that the couples as detailed in the Appendix have been either registered or modified in the Official Airbus Qualified Test Methods List (QTML).

The latest valid status of all qualified couples is published by regular QTML reports:

- On Airbus homepage for Suppliers (https://www.airbus.com/be-an-airbus-supplier.html)
 Only Independent Labs.
- On Airbus Supply Portal All External Test Facilities.

A qualified couple is not linked to a specific product. It is the evidence that the External Test Facility is meeting the requirement of the M20691.2: Perform Couple Compliance and Maturity's Activities for Material Products Suppliers and/or M20691.3: Perform Couple Compliance and Maturity's Activities for Aerostructure Parts Suppliers.

We ask you to inform AIRBUS about any modification which could affect the current qualification(s).

Airbus reserves the right to withdraw or suspend the qualification at any time for specific reason, e.g.

- Any major incident(s) detected on one or several Test processes
- Lack in quality, including the surveillance activities (PTP results, Nadcap accreditation, etc)
- Evidence Of non-compliance with the M20691.2 and/or M20691.3
- Loss of Airbus Supplier Approval
- Stop of the Business

Yours faithfully,

The Test Method Central Team

Appendix: Matrix of qualified Couples <Test Methods/ Shop>

* Next PTP participation year is given for information - It is the External Shop's responsibility to check every year on the PTP Website which kits are proposed.

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EX-SITU

Test Methods (TM) as listed in Airbus Commercial Aircraft QTML for

ELEMENT MATERIALS TECHNOLOGY - (147019)

Test Standard(s)	Test label	Surveillance Sub Family	Complexity	Qualification Status	Limitation	Next External comparision test Participation.*	Technical Qualification Reference	Deviation Reference	Last Qualification Update date
AITM1-0040	RESIDUAL STRESS MEASUREMENT FOR METALLIC PLATES	RESIDUAL STRESS	LOW	QUALIFIED WITH LIMITATIONS	PART 2 ONLY (HOLE DRILLING METHOD) WITH TYPE A ROSETTE / TESTS ON SPECIMENS NOT INCLUDED				
ASTMB117	STANDARD PRACTICE FOR OPERATING SALT SPRAY (FOG) APPARATUS	CORROSION	LOW	QUALIFIED		2026			10/08/2023
ASTMB769	STANDARD TEST METHOD FOR SHEAR TESTING OF ALUMINUM ALLOYS	SHEAR	LOW	QUALIFIED					
ASTME112	STANDARD TEST METHODS FOR DETERMINING AVERAGE GRAIN SIZE	GRAIN SIZE	LOW	QUALIFIED		2026			
ASTME1181	STANDARD TEST METHODS FOR CHARACTERIZING DUPLEX GRAIN SIZES	GRAIN SIZE	LOW	QUALIFIED WITH LIMITATIONS	COMPARISON METHOD ONLY				13/12/2023
ASTME238	STANDARD TEST METHOD FOR PIN-TYPE BEARING TEST OF METALLIC MATERIALS	SHEAR	HIGH	AUTHORISED TO PROCEED-31/03/2025		2025	151194		17/10/2023

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ASTME3	STANDARD GUIDE FOR PREPARATION OF METALLOGRAPHIC SPECIMENS	MANUFACTURING	LOW	QUALIFIED					
ASTME340	STANDARD PRACTICE FOR MACROETCHING METALS AND ALLOYS	MICROSCOPY	LOW	QUALIFIED WITH LIMITATIONS	INTERCHANGEABILITY ICY-CS-19839 NOTE - 2 WAYS WITH EN2954 PER CONDITIONS: ONLY APPLICABLE FOR TITANIUM AND TITANIUM ALLOY WROUGHT				29/11/2022
ASTME399	STANDARD TEST METHOD FOR PLAIN STRAIN FRACTURE TOUGHNESS OF METALLIC MATERIALS	FRACTURE	HIGH	QUALIFIED		2025	171304		
ASTME407	TEST METHODE FOR MICROETCHING OF METALS AND ALLOYS	MICROSCOPY	LOW	QUALIFIED					
ASTME45	STANDARD TEST METHODS FOR DETERMINING THE INCLUSION CONTENT OF STEEL	INCLUSION	LOW	QUALIFIED		2025			
ASTME647	STANDARD TEST METHOD FOR MEASUREMENT OF FATIGUE CRACK GROWTH RATES	FRACTURE	HIGH	QUALIFIED WITH LIMITATIONS	CT AND MT SPECIMENS	2026	QCS131401		

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ASTME9	STANDARD TEST METHODS OF COMPRESSION TESTING OF METALLIC MATERIALS AT ROOM TEMPERATURE	COMPRESSION	LOW	QUALIFIED		2025			
ASTME930	STANDARD TEST METHODS FOR ESTIMATING THE LARGEST GRAIN OBSERVED IN A METALLOGRAPHIC SECTION (ALA GRAIN SIZE)	GRAIN SIZE	LOW	QUALIFIED WITH LIMITATIONS	MEASURING PROCEDURE ONLY				13/12/2023
ASTMF2111	STANDARD PRACTICE FOR MEASURING INTERGRANULAR ATTACK OR END GRAIN PITTING ON METALS CAUSED BY AIRCRAFT CHEMICAL PROCESSES	CORROSION	LOW	QUALIFIED					13/01/2025
ASTMG110	STANDARD PRACTICE FOR EVALUATING INTERGRANULAR CORROSION RESISTANCE OF HEAT TREATABLE ALUMINUM ALLOYS BY IMMERSION IN SODIUM CHLORIDE?+?HYDROGEN PEROXIDE SOLUTION	CORROSION	LOW	QUALIFIED					
ASTMG34	STANDARD PRACTICE FOR EVALUATING EXFOLIATION CORROSION SUSCEPTIBILITY IN 2XXX AND 7XXX SERIES ALUMINUM ALLOYS	CORROSION	LOW	QUALIFIED					

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ASTMG44	STANDARD PRACTICE FOR EXPOSURE OF METALS AND ALLOYS BY ALTERNATE IMMERSION IN NEUTRAL 3.5% SODIUM CHLORIDE SOLUTION	ENVIRONMENTAL STRESS	HIGH	QUALIFIED		2026	151182		
ASTMG47	STANDARD TEST METHOD FOR DETERMINING SUSCEPTIBILITY TO STRESS-CORROSION CRACKING OF 2XXX AND 7XXX ALUMINUM ALLOY PRODUCTS	ENVIRONMENTAL STRESS	HIGH	QUALIFIED		2026	151182		
ASTMG49	STANDARD PRACTICE FOR PREPARATION AND USE OF DIRECT TENSION STRESS- CORROSION TEST SPECIMENS	ENVIRONMENTAL STRESS	HIGH	QUALIFIED WITH LIMITATIONS	M -ALUMINIUM ALLOYS	2026	151182		08/10/2024
EN2002-1	TENSILE TESTING AT AMBIENT TEMPERATURE	TENSILE	LOW	QUALIFIED WITH LIMITATIONS	INTERCHANGEABILITY PER 19772-ICY-CS NOTE- 2 WAYS WITH ISO6892 AND ASTM E8 WITHOUT CONDITIONS INCLUDING YOUNG MODULUS DETERMINATION PER ASTME111	2025			05/09/2024
EN2002-6	METALLIC MATERIALS: BEND TESTING	FLEXURE	LOW	QUALIFIED					
EN2003-9	AEROSPACE SERIES - TEST METHODS - TITANIUM AND TITANIUM ALLOYS - PART 009: DETERMINATION OF SURFACE CONTAMINATION	MICROSCOPY	LOW	QUALIFIED WITH LIMITATIONS	METHOD A	2025			17/08/2023

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EN2832	HYDROGEN EMBRITTLEMENT OF STEELS; NOTCHED SPECIMEN TEST	ENVIRONMENTAL STRESS	LOW	QUALIFIED		2025			
EN3665	TEST METHODS FOR PAINTS AND VARNISHES - FILIFORM CORROSION RESISTANCE TEST ON ALUMINIUM ALLOYS	CORROSION	LOW	QUALIFIED					
EN6072	CONSTANT AMPLITUDE FATIGUE TESTING	FATIGUE	HIGH	QUALIFIED		2025			
ISO1463	MEASUREMENT OF COATING THICKNESS - MICROSCOPICAL METHODE	MICROSCOPY	LOW	QUALIFIED		2026			
ISO148-1	METALLIC MATERIAL - CHARPY PENDULUM IMPACT TEST	IMPACT	LOW	QUALIFIED WITH LIMITATIONS	NOT QUALIFIED FOR LATERAL EXPANSION / ABSORBED ENERGY ONLY (ROOM AND LOW TEMPERATURE)	2026			
ISO2360				QUALIFIED					

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ISO2409	PAINTS AND VARNISHES - CROSS-CUT TEST	ADHESION	LOW	QUALIFIED		2026			21/10/2022
ISO2808	PAINTS AND VARNISHES - DETERMINATION OF FILM THICKNESS	THICKNESS	LOW	QUALIFIED		2026			
ISO2812-2	PAINTS AND VARNISHES - DETERMINATION OF RESISTANCE TO LIQUIDS - PART 2: WATER IMMERSION METHOD	RESISTANCE TO FLUIDS	LOW	QUALIFIED		2026			
ISO2819	METALLIC COATINGS ON METALLIC SUBSTRATES; ELECTRODEPOSITED AND CHEMICALLY DEPOSITED COATINGS; REVIEW OF METHODS AVAILABLE FOR TESTING ADHESION	ADHESION	LOW	QUALIFIED					
ISO643	STEELS - MICROGRAPHIC DETERMINATION OF THE APPARENT GRAIN SIZE	GRAIN SIZE	LOW	QUALIFIED		2026			
ISO6508-1	METALLIC MATERIALS - ROCKWELL HARDNESS TEST - PART 1: TEST METHOD	HARDNESS	LOW	QUALIFIED		2026			14/10/2024

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ISO9227	CORROSION TESTS IN ARTIFICIAL ATMOSPHERES - SALT SPRAY TESTS	CORROSION	LOW	AUTHORISED TO PROCEED-31/03/2025		2026			18/10/2023
NASM1312-1	FASTENER TEST METHODS, SALT SPRAY	CORROSION	LOW	QUALIFIED					
NASM1312-12	FASTENER TEST METHODS, THICKNESS OF METALLIC COATINGS	THICKNESS	LOW	QUALIFIED					
NASM1312-4	FASTENER TEST METHODS, LAP JOINT SHEAR TEST, COMPOSITE	SHEAR	LOW	QUALIFIED					

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AITM1-0047	GLARE MATERIAL. INTERLAMINAR SHEAR TEST	FLEXURE	LOW	SUSPENDED						15/06/2023
AITM1-0048	GLARE MATERIAL. COMPRESSION TEST	COMPRESSION	LOW	SUSPENDED						15/06/2023
AITM1-0049	GLARE MATERIAL. TENSILE TEST	TENSILE	LOW	SUSPENDED						15/06/2023
AITM1-0050	GLARE MATERIAL. OPEN HOLE TENSILE STRENGTH	TENSILE	LOW	SUSPENDED						15/06/2023
AITM1-0059	GLARE MATERIAL. IN- PLANE-SHEAR PROPERTIES	SHEAR	LOW	SUSPENDED						15/06/2023
ASTMB213	STANDARD TEST METHODS FOR FLOW RATE OF METAL POWDERS USING THE HALL FLOW METER FUNNEL	DENSITY	LOW	WITHDRAWN						05/07/2024

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ASTMB214	SIEVE ANALYSIS OF METAL POWDERS	DENSITY	LOW	WITHDRAWN						05/07/2024
ASTMB215	STANDARD PRACTICES FOR SAMPLING METAL POWDERS	GUIDANCE	NA	WITHDRAWN						05/07/2024
ASTMB417	APPARENT DENSITY OF NON-FREE-FLOWING METAL POWDERS USING THE CARNEY FUNNEL	DENSITY	LOW	WITHDRAWN						05/07/2024
ASTMB527	STANDARD TEST METHOD FOR DETERMINATION OF TAP DENSITY OF METALLIC POWDERS AND COMPOUNDS	DENSITY	LOW	WITHDRAWN						05/07/2024
ASTMB822	STANDARD TEST METHOD FOR PARTICLE SIZE DISTRIBUTION OF METAL POWDERS AND RELATED CONPOUNDS BY LIGHT SCATTERING	SIZING	LOW	WITHDRAWN						05/07/2024
ASTME111	STANDARD TEST METHOD FOR YOUNG'S MODULUS, TANGENT MODULUS AND CHORD MODULUS	TENSILE	LOW	WITHDRAWN						13/12/2022

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ASTME8	STANDARD TEST METHODS FOR TENSION TESTING OF METALLIC MATERIALS	TENSILE	LOW	WITHDRAWN						25/08/2023
ASTMF2111A			10	WITHDRAWN						08/01/2025
ISO13320	PARTICLE SIZE ANALYSIS — LASER DIFFRACTION METHODS	SIZING	LOW	WITHDRAWN						05/07/2024
ISO4287	GEOMETRICAL PRODUCT SPECIFICATION (GPS) - SURFACE TEXTURE: PROFILE METHOD - TERMS, DEFINITIONS AND SURFACE TEXTURE PARAMETERS	ROUGHNESS	NA	WITHDRAWN						10/01/2023
ISO4288	GEOMETRICAL PRODUCT SPECIFICATIONS (GPS) - SURFACE TEXTURE: PROFILE METHOD - RULES AND PROCEDURES FOR THE ASSESSMENT OF SURFACE TEXTURE	ROUGHNESS	NA	WITHDRAWN						10/01/2023

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ISO6506	METALLIC MATERIALS - BRINELL HARDNESS TEST	HARDNESS	LOW	WITHDRAWN		2024				15/06/2023
ISO6507	METALLIC MATERIALS - VICKERS HARDNESS TEST	HARDNESS	LOW	WITHDRAWN						15/06/2023
ISO6508	METALLIC MATERIALS - ROCKWELL HARDNESS TEST	HARDNESS	LOW	WITHDRAWN		2026				08/01/2025
ISO6892	METALLIC MATERIALS - TENSILE TESTING - PART 1: METHOD OF TEST AT ROOM TEMPERATURE PART 2: METHOD OF TEST AT ELEVATED TEMPERATURE PART 3: METHOD OF TEST AT LOW TEMPERATURE	TENSILE	LOW	WITHDRAWN						25/08/2023
NASM1312-8	FASTENER TEST METHODS, TENSILE STRENGTH	TENSILE	LOW	WITHDRAWN						15/06/2023

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