

ELEMENT MATERIALS TECHNOLOGY

HUNTINGTON BEACH BRANCH

15062 BOLSA CHICA STREET

92649, HUNTIGTON

US

309680

TYPE of External Shop

INDEPENDENT

Uncontrolled If Printed

Attestation letter for Qualification on Test Methods :

This attestation demonstrates recognition of Airbus Commercial (including Airbus Aerostructures and Airbus Atlantic) Aircraft qualification for:

- **Test Methods (TM):**

CHEMISTRY (COMPOSITION, CORROSION, SPECTROSCOPY)

MANUFACTURING (MANUFACTURING)

MECHANICAL (ASSEMBLY, COMPRESSION, CREEP, ENVIRONMENTAL STRESS, FATIGUE, FLEXURE, FRACTURE, IMPACT, SHEAR, TENSILE)

METALLOGRAPHY (GRAIN SIZE, HYDROGEN CONTENT, INCLUSION, MICROSCOPY)

PHYSICAL (AGING, DENSITY, HARDNESS, THICKNESS)

Note:
The official, legally binding and updated qualification status remains the QTML (Qualified Test Methods List) published on the Airbus Supply Portal. It is the facility's responsibility to maintain compliance with M20691 requirements and ensure mandatory PTP participation.

* 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.

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
ASTMA262	STANDARD PRACTICES FOR DETECTING SUSCEPTIBILITY TO INTERGRANULAR ATTACK IN AUSTENITIC STAINLESS STEELS	CORROSION	LOW	QUALIFIED					
ASTMA604	STANDARD PRACTICE FOR MACROETCH TESTING OF CONSUMABLE ELECTRODE REMELTED STEEL BARS AND BILLETS	MICROSCOPY	LOW	QUALIFIED					
ASTMB117	STANDARD PRACTICE FOR OPERATING SALT SPRAY (FOG) APPARATUS	CORROSION	LOW	QUALIFIED		2026			09/11/2022
ASTMB769	STANDARD TEST METHOD FOR SHEAR TESTING OF ALUMINUM ALLOYS	SHEAR	LOW	QUALIFIED					
ASTMB923	STANDARD TEST METHOD FOR METAL POWDER SKELETAL DENSITY BY HELIUM OR NITROGEN PYCNOMETRY	DENSITY	LOW	QUALIFIED					01/06/2026
ASTME10	STANDARD TEST METHOD FOR BRINELL HARDNESS OF METALLIC MATERIALS	HARDNESS	LOW	QUALIFIED		2027			01/06/2026
ASTME1019	STANDARD TEST METHOD FOR DETERMINATION OF CARBON, SULFUR, NITROGEN, AND OXYGEN IN STEEL, IRON, NICKEL, AND COBALT ALLOYS BY VARIOUS COMBUSTION AND FUSION TECHNIQUES	COMPOSITION	LOW	QUALIFIED		2026			
ASTME1086	STANDARD TEST METHOD FOR ANALYSIS OF AUSTENITIC STAINLESS STEEL BY SPARK ATOMIC EMISSION SPECTROMETRY	SPECTROSCOPY	LOW	QUALIFIED		2027			
ASTME112	STANDARD TEST METHODS FOR DETERMINING AVERAGE GRAIN SIZE	GRAIN SIZE	LOW	QUALIFIED		2027			01/06/2026

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
ASTME1181	STANDARD TEST METHODS FOR CHARACTERIZING DUPLEX GRAIN SIZES	GRAIN SIZE	LOW	QUALIFIED					
ASTME139	STANDARD TEST METHODS FOR CONDUCTING CREEP, CREEP-RUPTURE AND STRESS-RUPTURE TESTS OF METALLIC MATERIALS	CREEP	LOW	QUALIFIED		2027			
ASTME1409	STANDARD TEST METHOD FOR DETERMINATION OF OXYGEN AND NITROGEN IN TITANIUM AND TITANIUM ALLOYS BY THE INERT GAS FUSION TECHNIQUE	SPECTROSCOPY	LOW	QUALIFIED		2026			04/03/2025
ASTME1447	STANDARD TEST METHOD FOR DETERMINATION OF HYDROGEN IN TITANIUM AND TITANIUM ALLOYS BY THE INERT GAS FUSION THERMAL CONDUCTIVITY/ INFRARED DETECTION METHOD	HYDROGEN CONTENT	LOW	QUALIFIED		2026			04/03/2025
ASTME18	STANDARD TEST METHODS FOR ROCKWELL HARDNESS OF METALLIC MATERIALS	HARDNESS	LOW	QUALIFIED WITH LIMITATIONS	INTERCHANGEABILITY PER 20955-ICY-CS NOTE- 2 WAYS WITH ISO6508	2027			01/06/2026
ASTME1834	STANDARD TEST METHOD FOR ANALYSIS OF NICKEL ALLOYS BY GRAPHITE FURNACE ATOMIC ABSORPTION SPECTROMETRY	SPECTROSCOPY	LOW	QUALIFIED		2026			28/03/2025
ASTME1941	DETERMINATION OF CARBON IN REFRACTORY AND REACTIVE METALS AND THEIR ALLOYS BY COMBUSTION ANALYSIS	COMPOSITION	LOW	QUALIFIED WITH LIMITATIONS	*SULPHUR DETECTION CAPABILITY: HIGHER THAN 0.0010%	2026			
ASTME21	STANDARD TEST METHODS FOR ELEVATED TEMPERATURE TENSION TESTS OF METALLIC MATERIALS	TENSILE	LOW	QUALIFIED		2026			11/05/2023

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
ASTME2371	STANDARD TEST METHOD FOR ANALYSIS OF TITANIUM AND TITANIUM ALLOYS BY ATOMIC EMISSION PLASMA SPECTROMETRY	SPECTROSCOPY	LOW	QUALIFIED		2026			
ASTME3	STANDARD GUIDE FOR PREPARATION OF METALLOGRAPHIC SPECIMENS	MANUFACTURING	LOW	QUALIFIED WITH LIMITATIONS	- ELEMENT MATERIALS (15062, BOLSA CHICA SITE): LIMITED TO LONGITUDINAL POLISHING. / - ELEMENT MATERIALS (15678, GRAHAM STREET SITE): LIMITED TO METALLIC SPECIMEN MACHINING MADE FOR ELEMENT MATERIALS (15062 BOLSA CHICA SITE)				
ASTME3061	STANDARD TEST METHOD FOR ANALYSIS OF ALUMINUM AND ALUMINUM ALLOYS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROMETRY (PERFORMANCE BASED METHOD)	SPECTROSCOPY	LOW	QUALIFIED		2026			02/11/2024
ASTME340	STANDARD PRACTICE FOR MACROETCHING METALS AND ALLOYS	MICROSCOPY	LOW	QUALIFIED					
ASTME384	TEST METHODE FOR MICROHARDNESS OF MATERIALS	HARDNESS	LOW	QUALIFIED		2027			20/10/2023
ASTME399	STANDARD TEST METHOD FOR PLAIN STRAIN FRACTURE TOUGHNESS OF METALLIC MATERIALS	FRACTURE	HIGH	QUALIFIED		2026	QCS221395 ISSUE 1		16/01/2024
ASTME407	TEST METHODE FOR MICROETCHING OF METALS AND ALLOYS	MICROSCOPY	LOW	QUALIFIED					
ASTME415	STANDARD TEST METHOD FOR ANALYSIS OF CARBON AND LOW-ALLOY STEEL BY SPARK ATOMIC EMISSION SPECTROMETRY	SPECTROSCOPY	LOW	QUALIFIED		2027			

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
ASTME45	STANDARD TEST METHODS FOR DETERMINING THE INCLUSION CONTENT OF STEEL	INCLUSION	LOW	QUALIFIED WITH LIMITATIONS	ONE WAY INTERCHANGEABLE WITH EN2951 PER 24814-ICY-CS	2026			05/03/2026
ASTME647	STANDARD TEST METHOD FOR MEASUREMENT OF FATIGUE CRACK GROWTH RATES	FRACTURE	HIGH	QUALIFIED WITH LIMITATIONS	THE QUALIFICATION IS RESTRICTED ONLY TO SPECIMENS OF TYPE C(T) (COMPACT TENSION) UP TO A WIDTH OF 75MM (W=75MM). THERE IS NO MATERIAL RESTRICTION.	2027	221394		27/06/2025
ASTME8	STANDARD TEST METHODS FOR TENSION TESTING OF METALLIC MATERIALS	TENSILE	LOW	QUALIFIED		2027			
ASTME9	STANDARD TEST METHODS OF COMPRESSION TESTING OF METALLIC MATERIALS AT ROOM TEMPERATURE	COMPRESSION	LOW	QUALIFIED		2026			
ASTME930	STANDARD TEST METHODS FOR ESTIMATING THE LARGEST GRAIN OBSERVED IN A METALLOGRAPHIC SECTION (ALA GRAIN SIZE)	GRAIN SIZE	LOW	QUALIFIED					
ASTMF519	STANDARD TEST METHOD FOR MECHANICAL HYDROGEN EMBRITTLEMENT EVALUATION OF PLATING/ COATING PROCESSES AND SERVICE ENVIRONMENTS	ENVIRONMENTAL STRESS	LOW	QUALIFIED		2027			01/04/2025
ASTMG34	STANDARD PRACTICE FOR EVALUATING EXFOLIATION CORROSION SUSCEPTIBILITY IN 2XXX AND 7XXX SERIES ALUMINUM ALLOYS	CORROSION	LOW	QUALIFIED					
ASTMG44	STANDARD PRACTICE FOR EXPOSURE OF METALS AND ALLOYS BY ALTERNATE IMMERSION IN NEUTRAL 3.5% SODIUM CHLORIDE SOLUTION	ENVIRONMENTAL STRESS	HIGH	QUALIFIED		2026	240192		27/03/2024

Uncontrolled if printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
ASTMG47	STANDARD TEST METHOD FOR DETERMINING SUSCEPTIBILITY TO STRESS-CORROSION CRACKING OF 2XXX AND 7XXX ALUMINUM ALLOY PRODUCTS	ENVIRONMENTAL STRESS	HIGH	QUALIFIED		2026	240192		27/03/2024
ASTMG49	STANDARD PRACTICE FOR PREPARATION AND USE OF DIRECT TENSION STRESS-CORROSION TEST SPECIMENS	ENVIRONMENTAL STRESS	HIGH	QUALIFIED		2026	240192		27/03/2024
EN2002-1	TENSILE TESTING AT AMBIENT TEMPERATURE	TENSILE	LOW	QUALIFIED WITH LIMITATIONS	INTERCHANGEABILITY PER 19772-ICY-CS NOTE- 2 WAYS WITH ASTM B 557	2027			01/06/2026
EN2002-2	TENSILE TESTING AT ELEVATED TEMPERATURE	TENSILE	LOW	QUALIFIED		2026			10/09/2024
EN2002-5	TEST METHODS FOR METALLIC MATERIALS - PART 5 : UNINTERRUPTED CREEP AND STRESS-RUPTURE TESTING	CREEP	LOW	QUALIFIED		2027			01/04/2025
EN2002-6	METALLIC MATERIALS: BEND TESTING	FLEXURE	LOW	QUALIFIED					
EN2003-10	AEROSPACE SERIES - TITANIUM AND TITANIUM ALLOYS - TEST METHODS - PART 010: SAMPLING FOR DETERMINATION OF HYDROGEN CONTENT	MANUFACTURING	LOW	QUALIFIED		2026			
EN2832	HYDROGEN EMBRITTLEMENT OF STEELS; NOTCHED SPECIMEN TEST	ENVIRONMENTAL STRESS	LOW	QUALIFIED		2027			
EN6072	CONSTANT AMPLITUDE FATIGUE TESTING	FATIGUE	HIGH	QUALIFIED WITH LIMITATIONS	TWO WAY INTERCHANGEABLE WITH ASTME466 PER 20156-ICY-CS	2027	QCS231898 ISS1		05/08/2025

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
ISO148-1	METALLIC MATERIAL - CHARPY PENDULUM IMPACT TEST	IMPACT	LOW	QUALIFIED		2026			
ISO643	STEELS - MICROGRAPHIC DETERMINATION OF THE APPARENT GRAIN SIZE	GRAIN SIZE	LOW	QUALIFIED		2025			01/06/2026
ISO6506-1	METALLIC MATERIALS - BRINELL HARDNESS TEST - PART 1: TEST METHOD	HARDNESS	LOW	QUALIFIED		2027			01/06/2026
ISO6507-1	METALLIC MATERIALS - VICKERS HARDNESS TEST - PART 1: TEST METHOD	HARDNESS	LOW	QUALIFIED		2027			
ISO6508-1	METALLIC MATERIALS - ROCKWELL HARDNESS TEST - PART 1: TEST METHOD	HARDNESS	LOW	QUALIFIED		2027			01/06/2026
ISO6892-1	METALLIC MATERIALS - TENSILE TESTING - PART 1: METHOD OF TEST AT ROOM TEMPERATURE	TENSILE	LOW	QUALIFIED		2027			01/06/2026
ISO9227	CORROSION TESTS IN ARTIFICIAL ATMOSPHERES - SALT SPRAY TESTS	CORROSION	LOW	QUALIFIED		2026			
NASM1312-1	FASTENER TEST METHODS, SALT SPRAY	CORROSION	LOW	QUALIFIED					
NASM1312-10	FASTENER TEST METHODS, STRESS RUPTURE	ASSEMBLY	LOW	QUALIFIED					

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
NASM1312-11	FASTENER TEST METHODS, TENSION FATIGUE	FATIGUE	HIGH	QUALIFIED		2026	210997		21/02/2023
NASM1312-12	FASTENER TEST METHODS, THICKNESS OF METALLIC COATINGS	THICKNESS	LOW	QUALIFIED					
NASM1312-13	FASTENER TEST METHODS, DOUBLE SHEAR TEST	SHEAR	LOW	QUALIFIED		2027			21/09/2023
NASM1312-14	FASTENER TEST METHODS, STRESS DURABILITY (INTERNALLY THREADED FASTENERS)	ASSEMBLY	LOW	QUALIFIED					
NASM1312-18	FASTENER TEST METHODS, ELEVATED TEMPERATURE, TENSILE STRENGTH	TENSILE	LOW	QUALIFIED					
NASM1312-20	FASTENER TEST METHODS, SINGLE SHEAR	SHEAR	LOW	QUALIFIED		2026			
NASM1312-3	FASTENER TEST METHODS, HUMIDITY	AGING	LOW	QUALIFIED					
NASM1312-5	FASTENER TEST METHODS, STRESS DURABILITY	ASSEMBLY	LOW	QUALIFIED					
NASM1312-6	FASTENER TEST METHODS, HARDNESS	HARDNESS	LOW	QUALIFIED					

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

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
NASM1312-8	FASTENER TEST METHODS, TENSILE STRENGTH	TENSILE	LOW	QUALIFIED		2027			04/09/2023
SAEAMS2315	DETERMINATION OF DELTA FERRITE CONTENT	MICROSCOPY	LOW	QUALIFIED					01/06/2026

Uncontrolled if Printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

Test Standard(s)	Test Label	Surveillance Sub Family	Complexity	Qualification Status	Limitation	Next External comparision test Participation.*	Facility	Technical Qualification Reference	Deviation Reference	Last Qualification Update date
AITM4-0002	MICROSTRUCTURAL CHARACTERIZATION OF WELDED ALUMINIUM STRUCTURES	MICROSCOPY	LOW	WITHDRAWN						31/03/2025
ASTME2465	STANDARD TEST METHOD FOR ANALYSIS OF NI-BASE ALLOYS BY WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE SPECTROMETRY	SPECTROSCOPY	LOW	WITHDRAWN						31/03/2025
ASTME322	STANDARD TEST METHOD FOR ANALYSIS OF LOW-ALLOY STEELS AND CAST IRONS BY WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE SPECTROMETRY	SPECTROSCOPY	LOW	WITHDRAWN						18/10/2024
ASTME34	STANDARD TEST METHODS FOR CHEMICAL ANALYSIS OF ALUMINUM AND ALUMINUM-BASE ALLOYS	SPECTROSCOPY	LOW	WITHDRAWN						18/10/2024
ASTME572	STANDARD TEST METHOD FOR ANALYSIS OF STAINLESS AND ALLOY STEELS BY WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE SPECTROMETRY	SPECTROSCOPY	LOW	WITHDRAWN						31/03/2025
ASTMG85	STANDARD PRACTICE FOR MODIFIED SALT SPRAY (FOG) TESTING EXPERTISE: EDSWB / MAIN USER: EDSWO	CORROSION	LOW	WITHDRAWN						31/03/2025
EN10276	DETERMINATION FO OXYGENIN STEEL AND IRON.	CONTENT	LOW	WITHDRAWN						31/03/2025
EN2003-7	AEROSPACE SERIES - TEST METHODS FOR METALLIC MATERIALS – PART 8 : MACROGRAPHIC TEST	MICROSCOPY	NA	WITHDRAWN						18/10/2024

Uncontrolled if printed

EX-SITU

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

ELEMENT MATERIALS TECHNOLOGY - (309680)

Test Standard(s)	Test Label	Surveillance Sub Family	Complexity	Qualification Status	Limitation	Next External comparision test Participation.*	Facility	Technical Qualification Reference	Deviation Reference	Last Qualification Update date
EN6018	DETERMINATION OF DENSITY ACCORDING TO DISPLACEMENT METHODE	DENSITY	LOW	WITHDRAWN						31/03/2025
ISO2409	PAINTS AND VARNISHES - CROSS-CUT TEST	ADHESION	LOW	WITHDRAWN						12/02/2024
ISO6507	METALLIC MATERIALS - VICKERS HARDNESS TEST	HARDNESS	LOW	WITHDRAWN						08/01/2025
ISO6508	METALLIC MATERIALS - ROCKWELL HARDNESS TEST	HARDNESS	LOW	WITHDRAWN						26/10/2023
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	PART 1					05/08/2025
NASM1312-25	FASTENER TEST METHODS, DRIVING RECESS TORQUE QUALITY CONFORMANCE TEST	ASSEMBLY	LOW	WITHDRAWN						31/03/2025
NASM1312-31	FASTENER TEST METHODS, TORQUE	ASSEMBLY	LOW	WITHDRAWN						31/03/2025
NASM1312-9	FASTENER TEST METHODS, STRESS CORROSION	CORROSION	LOW	WITHDRAWN						31/03/2025

Uncontrolled If Printed