

ELEMENT MATERIALS TECHNOLOGY PILSEN

Podnikatelská 39
301 00 Pízeň
Czech Republic

FOR THE ATTENTION OF

Martin KONCAL General Manager
Tomas ZACH QualityResponsible

CERTIFICATE PREPARED BY
FARION Raïssa

YOUR QTML FOCAL POINT
FARION Raïssa

E-MAIL
raïssa.r.farion.external@airbus.com

PHONE
+33 5 61 18 81 61

DATE
03/11/2020

OUR REFERENCE
SUR2019.0250 Ind. C

ARP-ID of the External Shop
304743

TYPE of External Shop
Independent

Attestation letter for Qualification on Test Methods

Dear Madam, Dear Sir,

We herewith inform that the couples <Test Methods / External Shop> 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 <Test Methods / External Shop> 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 A2QS - All External Shops.

A qualified couple is not linked to a specific product. It is the proof that the External Shop is meeting the requirement of the M20691.2: Perform Couple <Product/Supplier Site> Compliance and Maturity's Activities for Material Products Suppliers and/or M20691.3: Perform Couple <Product/Supplier Site> Compliance and Maturity's Activities for Aerostructure Parts Suppliers.

- On a quality aspect: we kindly ask you to indicate us any modification which could have a quality impact.
- Concerning technical requirements:
 - * We kindly ask you to participate at least every 2 years to the PTP for the tests you perform on Airbus Products (see Appendix for details on next PTP participation requirements).
You can find all necessary information about PTP participation process on the website: <https://ptpscheme.com>.
In case of PTP results out of tolerances, the couples qualification can be downgraded to an authorisation to proceed or withdrawn and the PTP participation frequency is reduced to one year, subject to acceptance by Airbus of your Root Cause Analysis and associated Corrective Actions.
 - * On the other hand, you shall supply at least every 2 years the results of your Internal Homogeneity Studies per Test Families.

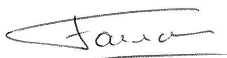
Airbus reserves the right to withdraw or suspend the qualification at any time for specific reason, e.g.

- Any major incident(s) detected on one or several Test processes
- Lack in quality
- Evidence non-compliance with the M20691.2 and/or M20691.3
- Loss of Airbus Supplier Approval
- Stop of the Business

Yours faithfully,

FARION Raïssa

**Airbus Test Methods Auditor POMDS – CE
Your QTML Focal Point**



SAUX Alexandra

**Test Methods Coordinator POMDS– CE
Your Quality Responsible**



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

APPENDIX: Matrix of qualified Couples <Test Methods / External Shop>

We hereby declare the External Shop:

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Qualified or Authorised to proceed for the following Test processes:

Test Standard(s) *	Test label	Complex.	Qualif. Status	Next PTP part. **	QCS Ref.	Remark
ASTM A604 (EN 2003-7)	Macroetch testing of consumable electrode remelted steel bars and billets	Low	Qualified			
ASTM E10	Standard Test Method for Brinell Hardness of Metallic Materials	Low	Qualified	2022		
ASTM E112	Determining average grain size	Low	Qualified	2021		
ASTM E1181	Standard test methods for characterizing duplex grain sizes	Low	Qualified			
ASTM E139	Creep, creep-rupture, and stress-rupture tests of metallic materials	Low	Qualified	2021		
ASTM E18	Standard Test Methods for Rockwell Hardness of Metallic Materials	Low	Authorised to Proceed March 2021	2021		
ASTM E21	Standard test methods for elevated temperature tension tests of metallic materials	Low	Qualified	2021		
ASTM E3	Standard guide for preparation of metallographic specimens	Low	Qualified			
ASTM E340	Macroetching metals and alloys	Low	Qualified			
ASTM E384	Microindentation hardness of materials	Low	Qualified	2022		
ASTM E399	Linear-elastic plane-strain fracture toughness K _{Ic} of metallic materials	High	Qualified	2022	171308	
ASTM E407	Microetching metals and alloys	Low	Qualified			
ASTM E45	Determining the inclusion content of steel	Low	Authorised to Proceed March 2021	2020		Waiting PTP 2020 results
ASTM E8	Tension testing of metallic materials	Low	Qualified	2021		Waiting IRR 2019 RCA
ASTM E92	Vickers Hardness and Knoop Hardness of Metallic Materials	Low	Authorised to Proceed March 2021	2021		
ASTM E930	Standard test methods for estimating the largest grain observed in a metallographic section (ALA grain size)	Low	Qualified			
EN 2002-1	Tensile testing at ambient temperature	Low	Qualified	2021		

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APPENDIX: Matrix of qualified Couples <Test Methods / External Shop>

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Test Standard(s) *	Test label	Complex.	Qualif. Status	Next PTP part. **	QCS Ref.	Remark
EN 2002-2	Tensile testing at elevated temperature	Low	Qualified	2021		
EN 2002-5	Test methods for metallic materials - Part 5: Uninterrupted creep and stress-rupture testing	Low	Qualified	2021		Qualified 17.02.18
EN 6072	Constant amplitude fatigue testing (HCF)	High	Qualified	2024		
EN 6072 (machining)	Fatigue test specimen machining (NADCAP test code O)	None	Authorised to Proceed December 2020			
ISO 148-1 (low temp.)	Charpy pendulum impact test (low temperature)	Low	Authorised to Proceed March 2021	2021		
ISO 148-1 (room temp.)	Charpy pendulum impact test (ambient temperature)	Low	Qualified	2021		
ISO 527-5	Determination of tensile properties - Part 5: Test conditions for unidirectional fibre-reinforced plastic composites	Low	Qualified			
ISO 643	Steels - Micrographic determination of the apparent grain size	Low	Qualified	2021		
ISO 6506	Metallic materials - Brinell hardness test	Low	Qualified	2022		
ISO 6507	Metallic materials - Vickers hardness test	Low	Authorised to Proceed March 2021	2021		
ISO 6508	Metallic materials - Rockwell hardness test	Low	Authorised to Proceed March 2021	2021		
Z_IGF	Inert gas fusion	None	Qualified with limitations	2022		Ti based alloys
Z_IGF	Inert Gas Fusion	Low	Qualified	2022		- H determination in Ti & Ti alloys according to ASTM E1447
Z_Opt. metallo.	Optical metallography	None	Qualified			Various materials

* Unless otherwise specified, last issue of the standard shall apply.

** Next PTP participation year is given for information - It is the External Shop's responsibility to check every year on the PTP Website (<https://ptpscheme.com/>) which kits are proposed.