PREMIUM AEROTEC GMBH AUGSBURG PLANT
4 - PETL LAB

HAUNSTETTER STR. 225
Building 428
86179 AUGSBURG
Germany

FOR THE ATTENTION OF

Michael GEYRHALTER Head of Test Laboratory
Miguel Gil VIRSEDA Head of Test Preparation & Processes
Marcus HARTMANN Authorities & Surveillance
Markus KLUG Head of Structure Test
Thomas WIEDERSATZ Engineering Quality

CERTIFICATE PREPARED BY
BOUVIER Mélanie

YOUR QTML FOCAL POINT
BOUVIER Mélanie

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DATE
21/08/2018

OUR REFERENCE
SUR2017.0335 Ind. C

ARP-ID of the External Shop
287747.1

TYPE of External Shop
Captive

Attestation letter for Qualification on Test Methods

Dear Madam, Dear Sir,

We herewith inform that the couples <Test Methods / External Shop> as detailled 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 AP5262: Qualification Process of Couples <Test Method / External Shop>.

We remind you that the maintenance of your Test Methods Qualification depends on your monitoring on quality and technical aspects and is surveyed by Airbus on a regular basis, every year or every 2 years.
- 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In case of PTP results out of tolerances, the couples qualification can be downgraded to an authorisation to proceed or withdrawn and the PTP participation frequency is reduced to one year, subject to acceptance by Airbus of your Root Cause Analysis and associated Corrective Actions.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 AP5262
- Loss of Airbus Supplier Approval
- Stop of the Business

Yours faithfully,

BOUVIER Mélanie
Airbus Test Methods Auditor POMDT – CE
Your QTML Focal Point

SORIN Marianne
Test Methods Coordinator POMDT – CE

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

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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. **	Remark
AITM 1-0002 (ISO 14129)	Fibre reinforced plastics - Determination of in-plane shear properties (±45° tensile test)	Low	Qualified	2017	
AITM 1-0003	Determination of the glass transition temperatures (DMA)	High	Qualified	2018	QCS161560
AITM 1-0005 (EN 6033)	Fibre reinforced plastics - Determination of interlaminar fracture toughness energy - Mode I - G1c	High	Qualified	2020	QCS131256
AITM 1-0007-A / B / C / D	Fibre reinforced plastics - Determination of plain, open hole and filled hole tensile strength	Low	Qualified	2018	
AITM 1-0008-A1 (<200kN) / A2	Fiber reinforced plastics - Determination of plain compression strength	High	Qualified	2019	Thin Specimens (A2) only QCS 126600
AITM 1-0008-A1 (<200kN) / A2	Fiber reinforced plastics - Determination of plain compression strength	High	Qualified	2018	Thick Specimens (A1) only QCS126599
AITM 1-0008-A3	Fiber reinforced plastics - Determination of plain compression strength (loads < 500 kN)	High	Qualified	TBD *	QCS 161408
AITM 1-0008-B / C / D	Fiber reinforced plastics - Determination of open hole or filled hole compression strength	Low	Qualified	N/A	
AITM 1-0009-1 / 2	Fibre reinforced plastics - Determination of bearing strength by either pin or bolt bearing configuration	High	Qualified	2020	QCS 130159 AITM 1-0009-2 only
AITM 1-0010 (EN 6038)	Fibre reinforced plastics - Determination of compression strength after impact	High	Qualified	2019	QCS131073
AITM 1-0018	Fibre reinforced plastics - Sandwich flexural test - Four-point bending	Low	Qualified		
AITM 1-0019	Determination of tensile lap shear strength of composite joints	Low	Qualified	2019	Also according to QVA-Z10-46-09 (restricted to Legacy programs)
AITM 1-0024	Determination of the completeness of cure of organic coatings	Low	Qualified		
AITM 1-0033	Sealants: Determination of the curing rate of sealing materials	Low	Qualified		
AITM 1-0053	Carbon fibre reinforced plastics - Determination of fracture toughness energy of bonded joints - Mode I - G1c	High	Qualified	2021	QCS131247
AITM 1-0066	Fibre reinforced plastics – Determination of pull-out / pull-through strength on riveted joints	Low	Qualified		

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AITM 2-0034	Sealants - Determination of tack-free time of sealing materials	Low	Qualified		
AITM 2-0061	Water pick up test-method to determine the impregnation level of prepeg materials	Low	Qualified		
AITM 3-0002	Analysis of non metallic material (uncured) by differential scanning calorimetry (DSC)	High	Authorised to Proceed December 2018	2018	Pending QCS
AITM 3-0008 (EN 6064)	Determination of the extent of cure by differential scanning calorimetry (DSC)	High	Authorised to Proceed December 2018	2018	Pending QCS
AITM 4-0005	Macroscopic and microscopic examination of fiber reinforced plastics	Low	Qualified		
AITM 7-0003	Sealants - Determination of application time of sealing materials	Low	Qualified		
ASTM B117	Standard practice for operating salt spray (Fog) apparatus	Low	Qualified	2019	
EN 12127	Textiles - Fabrics - Determination of mass per unit area using small samples	Low	Qualified		
EN 2002-1 (ASTM B557)	Tensile testing at ambient temperature	Low	Authorised to Proceed December 2018	2018	Method 2
EN 2003-9	Titanium and titanium alloys - Part 9: Determination of surface contamination (method A: Micrographic examination / Method B: Hardness testing)	Low	Qualified	2020	Method A only
EN 2243-1	Structural adhesives - Part 1: Single lap shear	Low	Qualified	2019	
EN 2243-3	Structural adhesives - Part 3: Peeling test metal-honeycomb core	Low	Qualified	2019	
EN 2329	Textile glass fibre preimpregnates - Test method for the determination of mass per unit area	Low	Qualified		
EN 2330	Textile glass fibre preimpregnates - Test method for the determination of the content of volatile matter	Low	Qualified		
EN 2331	Textile glass fibre preimpregnates - Test method for the determination of the resin and fibre content and mass of fibre per unit area	Low	Qualified		
EN 2332	Textile glass fibre preimpregnates - Test method for the determination of the resin flow	Low	Qualified		Also according to QVA-Z10-46-33 (restricted to Legacy Programs)

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EN 2377 (ISO 14130)	Glass fibre reinforced plastics - Determination of apparent interlaminar shear strength	Low	Qualified		
EN 2557	Carbon fibre preimpregnates - Determination of mass per unit area	Low	Qualified		Also according to QVA-Z10-46-08 (restricted to Legacy Programs)
EN 2558	Carbon fibre preimpregnates - Determination of the volatile content	Low	Qualified		
EN 2559	Carbon fibre preimpregnates - Test method for the determination of the resin and fibre content and the mass of fibre per unit area	Low	Qualified		
EN 2560	Carbon fibre preimpregnates - Determination of the resin flow	Low	Qualified		
EN 2561	Carbon Fibre reinforced plastics - Unidirectional laminates - Tensile test parallel to the fibre direction	Low	Qualified	2018	Also according to ISO 527-1, QVA-Z10-46-34 and QVA-Z10-46-36
EN 2563	Carbon fibre reinforced plastics - Unidirectional laminates - determination of apparent interlaminar shear strength	Low	Qualified	2018	Also according to QVA-Z10-46-10
EN 2564	Carbon fibre laminates - Determination of the fibre, resin and void contents	Low	Qualified	2019	
EN 2597	Carbon Fibre reinforced plastics - Unidirectional laminates - Tensile test perpendicular to the fibre direction	Low	Qualified		
EN 2747	Glass fibre reinforced plastics - Tensile test	Low	Qualified		
EN 2850-A (Pren) (ISO 14126-1)	Carbon fibre thermosetting resin unidirectional laminates - Compression test parallel to fibre direction - Method A	High	Qualified	2019	QCS 126660
EN 2850-B (Pren) (ISO 14126-2)	Carbon fibre thermosetting resin unidirectional laminates - Compression test parallel to fibre direction - Method B	Low	Qualified	N/A	
EN 6072	Constant amplitude fatigue testing (HCF)	High	Qualified	2019	QCS 171487
EN 6072 (machining)	Fatigue test specimen machining (NADCAP test code O)		Qualified		QCS 171487
ISO 14125	Fiber reinforced plastic composites - Determination of flexural properties	Low	Qualified		
ISO 1518	Paints and varnishes - Scratch test	Low	Qualified		
ISO 1519	Paints and varnishes - Bend test (cylindrical mandrel)	Low	Qualified		

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ISO 2409	Paints and varnishes - Cross-cut test	Low	Qualified	2020	
ISO 2808	Paints and varnishes - Determination of film thickness	Low	Authorised to Proceed December 2018	2020	Addy current method
ISO 2812-2	Paints and varnishes - Determination of resistance to liquids - Part 2: Water immersion method	Low	Qualified	2020	
ISO 4628-2	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 2: Assessment of degree of blistering	Low	Qualified		
ISO 527-4	Plastics - Determination of tensile properties - Part 4: Test conditions for isotropic and orthotropic fiber reinforced plastic composites	Low	Qualified		
ISO 6270-2	Paints and varnishes - Determination of resistance to humidity - Part 2: Procedure for exposing test specimens in condensation-water atmospheres	Low	Qualified		
ISO 6892	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	Low	Authorised to Proceed December 2018	2018	Part 1 only (room temperature)
ISO 7619-1	Rubber, vulcanized or thermoplastic - Determination of indentation hardness - Part 1: Durometer method (Shore hardness)	Low	Qualified		
ISO 9227 (ASTM B117)	Corrosion tests in artificial atmospheres - Salt spray tests	Low	Qualified	2019	Also according to QVA-Z10-59-01
Z_Other	Other test - Specify in Remark		Qualified		Production line QVA-Z10-46-12: Determination of the Laminate Fibre Content of Cured Fibre Compounds (restricted to Legacy programs)
Z_Other	Other test - Specify in Remark		Qualified		Incoming inspection QVA-Z10-46-20: Determination of Resin Content of Prepregs (restricted to Legacy programs)

* 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.

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