

APPLUS ILLESCAS

P.I. Las Carcavas II
Carretera de Toledo Km 33 Calle G
45200 ILLESCAS
Spain

FOR THE ATTENTION OF

Marina GARCIA PTP Mgr
Luis Guelbenzu Quality assurance manager
Elena O Mullony Laboratory manager

CERTIFICATE PREPARED BY
NUNEZ Cesar

YOUR QTML FOCAL POINT
NUNEZ Cesar

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DATE
05/12/2018

OUR REFERENCE
SUR2018.0004 Ind. E

ARP-ID of the External Shop
306790

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In case of PTP results out of tolerances, the couples qualification can be downgraded to an authorisation to proceed or withdrawn and the PTP participation frequency is reduced to one year, subject to acceptance by Airbus of your Root Cause Analysis and associated Corrective Actions.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,

NUNEZ Cesar

Airbus Test Methods Auditor POMDT – CE
Your QTML Focal Point



SAUX Alexandra

Test Methods Coordinator POMDT – 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
AIPS/AIPI 01-02-005	Preparation of holes in fibre reinforced plastic (FRP) and hybrid materials	Low	Qualified with limitations			Limited to test specimens manufacturing and machining.
AIPS/AIPI 01-02-008	Torque tightening of screws, bolts and nuts	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 01-02-017	General assembly and installation of fasteners	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 01-02-022	Installation of parallel shank threaded fasteners	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 03-02-019	Manufacture of monolithic parts with thermoset prepreg materials	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 03-07-002	Machining of fibre reinforced plastic (FRP) components	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 05-05-004	Wet installation of fasteners	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 06-01-003	Surface preparation for thermosetting parts before structural bonding	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AIPS/AIPI 06-01-004	Mechanical surface preparation of non-structural adherend prior to adhesive bonding	Low	Qualified with limitations			LIMITED TO TEST SPECIMEN MANUFACTURING.
AIPS/AIPI 06-02-002	Non-structural adhesive bonding	Low	Qualified with limitations			Limited to test specimens manufacturing and machining.
AIPS/AIPI 06-02-006	Structural bonding of thermoset and thermoplastic matrices compocite parts	High	Qualified with limitations		161064	Limited to test specimens manufacturing and machining.
AITM 1-0003	Determination of the glass transition temperatures (DMA)	High	Qualified	2020	131027	
AITM 1-0005 (EN 6033)	Fibre reinforced plastics - Determination of interlaminar fracture toughness energy - Mode I - G1c	High	Qualified	2020	120305	
AITM 1-0007-A / B / C / D	Fibre reinforced plastics - Determination of plain, open hole and filled hole tensile strength	Low	Qualified	2019		

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AITM 1-0008-A1	Fiber reinforced plastics - Determination of plain compression strength (Thick specimens, <200kN)	High	Qualified with limitations	2020	126574 / 151573	- Limited to HCCF - Restricted to Determination of plain modulus using hydraulic grips ONLY. - Determination of plain compression strength using hydraulic grips IS NOT ALLOWED.
AITM 1-0008-A2	Fiber reinforced plastics - Determination of plain compression strength (Thin specimens, <100 kN)	High	Qualified with limitations	2019	126563 / 151573	- Limited to HCCF - Restricted to Determination of plain modulus using hydraulic grips ONLY. - Determination of plain compression strength using hydraulic grips IS NOT ALLOWED.
AITM 1-0008-B / C / D	Fiber reinforced plastics - Determination of open hole or filled hole compression strength	Low	Qualified	2019		
AITM 1-0019	Determination of tensile lap shear strength of composite joints	Low	Qualified	2019		
AITM 1-0025	Fiber reinforced plastics - Flatwise tensile test of composite sandwich panel	Low	Qualified	2019		
AITM 1-0053	Carbon fibre reinforced plastics - Determination of fracture toughness energy of bonded joints - Mode I - G1c	High	Qualified	2019	120321	Polymers, plastics
AITM 2-0061	Water pick up test-method to determine the impregnation level of prepreg materials	Low	Qualified			
AITM 3-0002	Analysis of non metallic material (uncured) by differential scanning calorimetry (DSC)	High	Qualified	2020	180310	Qualified on 05/12/2018 TA Instruments Q2000
AITM 3-0008 (EN 6064)	Determination of the extent of cure by differential scanning calorimetry (DSC)	High	Qualified	2020	180311	Qualified on 05/12/2018 TA Instruments Q2000
AITM 3-0027	Determination of the melting behaviour and the extent of cristallinity of semi-cristalline materials by differential scanning calorimetry (DSC)	High	Authorised to Proceed December 2019			QCS Pending
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		Also according to QVA-Z10 46 05 and I+D-E-130
EN 2243-4	Structural adhesives - Part 4: Metal-honeycomb core flatwise tensile test	Low	Qualified	2019		
EN 2329	Textile glass fibre preimpregnates - Test method for the determination of mass per unit area	Low	Qualified			

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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			
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			
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	2019		
EN 2562	Carbon fibre reinforced plastics - Unidirectional laminates - Flexural test parallel to the fibre direction	Low	Qualified	2019		
EN 2563	Carbon fibre reinforced plastics - Unidirectional laminates - determination of apparent interlaminar shear strength	Low	Qualified	2019		Also according to I+D-E 031
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-B (Pren) (ISO 14126-2)	Carbon fibre thermosetting resin unidirectional laminates - Compression test parallel to fibre direction - Method B	Low	Qualified	2019		

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EN 3615	Fibre reinforced plastics - Determination of the conditions of exposure to humid atmosphere and of moisture absorption	Low	Qualified			
EN 542	Adhesives - Determination of density	Low	Qualified			
ISO 604	Plastics - Determination of compressive properties	Low	Qualified			
Z_Comp. spec. machining	Composite specimen machining / cutting / tabbing	None	Qualified			
Z_Comp. spec. prod.	Composite specimen production	None	Qualified			

* 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.