

**APPLUS (SHANGHAI) QUALITY INSPECTION CO.,  
LTD**

Jucheng Pionner Park, Building 23,  
3999 Xiu Pu Rd, Nan Hui  
201315 PUDONG DISTRICT, SHANGHAI  
China

*FOR THE ATTENTION OF*

David GALDEANO Material Testing Lab - Technical Manager  
Mauricio UBEDA General Manager

*CERTIFICATE PREPARED BY*  
NUNEZ Cesar

*YOUR QTML FOCAL POINT*  
NUNEZ Cesar

*E-MAIL*  
cesar.nunez.external@airbus.com

*PHONE*  
+33 6 77 98 01 23

*DATE*  
10/04/2019

*OUR REFERENCE*  
SUR2018.0543 Ind. D

*ARP-ID of the External Shop*  
311578

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case of PTP results out of tolerances, the couples qualification can be downgraded to an authorisation to proceed or withdrawn and the PTP participation frequency is reduced to one year, subject to acceptance by Airbus of your Root Cause Analysis and associated Corrective Actions.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

### **APPLUS (SHANGHAI) QUALITY INSPECTION CO., LTD**

Jucheng Pionner Park, Building 23,  
3999 Xiu Pu Rd, Nan Hui  
201315 PUDONG DISTRICT, SHANGHAI  
China

CERTIFICATE PREPARED BY  
NUNEZ Cesar

DATE  
10/04/2019

OUR REFERENCE  
SUR2018.0543 Ind. D

ARP-ID of the External Shop  
311578

TYPE of External Shop  
Independent

Qualified or Authorised to proceed for the following Test processes:

Test Standard(s) *	Test label	Complex.	Qualif. Status	Next PTP part. **	QCS Ref.	Remark
AITM 1-0002 (ISO 14129)	Fibre reinforced plastics - Determination of in-plane shear properties ( $\pm 45^\circ$ tensile test)	Low	Qualified	2019		
AITM 1-0003	Determination of the glass transition temperatures (DMA)	High	Qualified	2020	181505	Qualified on 12/12/2018 TA Q800 Equipment (ID# MET-061)
AITM 1-0005 (EN 6033)	Fibre reinforced plastics - Determination of interlaminar fracture toughness energy - Mode I - G1c	High	Qualified	2020	171553	* Issue 4 - Qualified on 21/11/2018 - Machine ID MET-001
AITM 1-0019	Determination of tensile lap shear strength of composite joints	Low	Qualified	2019		
AITM 1-0053	Carbon fibre reinforced plastics - Determination of fracture toughness energy of bonded joints - Mode I - G1c	High	Qualified	2019	151206	
ASTM D638	Tensile properties of plastics	Low	Qualified			
ASTM D790	Flexural properties of unreinforced and reinforced plastics and electrical insulating materials	Low	Qualified			
ASTM E112	Determining average grain size	Low	Qualified	2020		
ASTM E3	Standard guide for preparation of metallographic specimens	Low	Qualified			
ASTM E340	Macroetching metals and alloys	Low	Qualified			
ASTM E399	Linear-elastic plane-strain fracture toughness K <sub>Ic</sub> of metallic materials	High	Qualified	2019	180101	qualified 10/04/2019
ASTM E407	Microetching metals and alloys	Low	Qualified			
ASTM E8	Tension testing of metallic materials	Low	Qualified	2020		
EN 2002-1 (ASTM B557)	Tensile testing at ambient temperature	Low	Qualified	2020		
EN 2243-1	Structural adhesives - Part 1: Single lap shear	Low	Qualified	2019		
EN 2377 (ISO 14130)	Glass fibre reinforced plastics - Determination of apparent interlaminar shear strength	Low	Qualified			
EN 2561	Carbon Fibre reinforced plastics - Unidirectional laminates - Tensile test parallel to the fibre direction	Low	Qualified	2019		

© Airbus SAS, 2014. All rights reserved. Confidential and proprietary document. This document and all information contained herein is the sole property of Airbus SAS. No intellectual property rights are granted by the delivery of this document or the disclosure of its content. This document shall not be reproduced or disclosed to a third party without the express written consent of Airbus SAS. This document and its content shall not be used for any purpose other than that for which it is supplied.

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

We hereby declare the External Shop:

### **APPLUS (SHANGHAI) QUALITY INSPECTION CO., LTD**

Jucheng Pionner Park, Building 23,  
3999 Xiu Pu Rd, Nan Hui  
201315 PUDONG DISTRICT, SHANGHAI  
China

CERTIFICATE PREPARED BY  
NUNEZ Cesar

DATE  
10/04/2019

OUR REFERENCE  
SUR2018.0543 Ind. D

ARP-ID of the External Shop  
311578

TYPE of External Shop  
Independent

Qualified or Authorised to proceed for the following Test processes:

Test Standard(s) *	Test label	Complex.	Qualif. Status	Next PTP part. **	QCS Ref.	Remark
EN 2562	Carbon fibre reinforced plastics - Unidirectional laminates - Flexural test parallel to the fibre direction	Low	Qualified	2020		
EN 2563	Carbon fibre reinforced plastics - Unidirectional laminates - determination of apparent interlaminar shear strength	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		
ISO 6506 (ASTM E10)	Brinell hardness test	Low	Qualified	2020		
ISO 6507 (ASTM E92)	Vickers hardness test	Low	Qualified	2019		
ISO 6508 (ASTM E18)	Rockwell hardness test	Low	Qualified	2019		
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	Qualified	2020		
Z_Comp. spec. machining	Composite specimen machining / cutting / tabbing	None	Qualified			
Z_Comp. spec. prod.	Composite specimen production	None	Qualified			
Z_Metal. Spec. prep	Metallic specimen preparation (for mechanical testing)	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.