



*This certificate is granted and awarded by the authority of the Nadcap Management Council to:*

## ***IMR Test Labs - Singapore Pte Ltd***

*30 Loyang Way #03-16  
Singapore, 508769  
Singapore*

*This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in [www.eAuditNet.com](http://www.eAuditNet.com) on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:*

## ***Materials Testing Laboratories***

Certificate Number: 10951190433  
Expiration Date: 31 May 2021  
Accreditation Length: 18 Months

**David L. Schutt, PhD**  
President



## SCOPE OF ACCREDITATION

### Materials Testing Laboratories

#### IMR Test Labs - Singapore Pte Ltd

30 Loyang Way #03-16  
Singapore, 508769  
Singapore

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: [www.eAuditNet.com](http://www.eAuditNet.com) - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

#### **AC7101/1 Rev G - Nadcap Audit Criteria for Materials Testing Laboratories – General Requirements for All Laboratories (to be used on audits on/after 5 May 2019)**

#### **AC7101/2 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Chemical Analysis (to be used on audits on/after 22 March 2015)**

(F) Atomic or Optical Emission Spectroscopy (AES or OES)

(F2) Atomic Emission Spectroscopy – Inductively Coupled Plasma (ICP–OES/AES)

(F3) Atomic Emission Spectroscopy – Spark/Arc (S/A–OES)

(G) Elemental Analysis (Combustion or Fusion)

(G1) – Carbon

(G2) – Hydrogen

(G3) – Nitrogen

(G4) – Oxygen

(G5) – Sulfur

Specify the Alloy Base for Accreditation

Al Base

Co Base

Cu Base

Fe Base

Ni Base

Ti Base

#### **AC7101/3 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Mechanical Testing (to be used on audits on/after 4 December 2016)**

- (A) Room Temperature Tensile
- (B) Elevated Temperature Tensile
- (C) Stress Rupture
- (XA) Creep
- (XN) Bend Testing

**AC7101/4 Rev F - Nadcap Audit Criteria for Materials Testing Laboratories – Metallography and Microindentation Hardness (to be used on/after 14 August, 2016)**

- (L0) Metallographic Evaluation
- (L1) Microindentation (Interior)
- (L10) Near Surface Examinations – Carburization / Decarburization
- (L11) Grain Size
- (L12) Inclusion Rating
- (L2) Near Surface Examinations – Alloy Depletion
- (L3) Near Surface Examinations – Oxidation/Corrosion
- (L5) Near Surface Examinations – Microindentation (Surface–Case Depth)
- (L6) Near Surface Examinations – Nitriding
- (L7) Near Surface Examinations – IGA, IGO
- (L8) Near Surface Examinations – Alpha Case: Wrought Titanium
- (L9) Near Surface Examinations – Alpha Case: Cast Titanium
- (XL) Macro Examination

**AC7101/5 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Hardness Testing (Macro) (to be used on audits on/after 22 March 2015)**

- (M2) Rockwell Hardness

**AC7109/5 Rev G - Nadcap Audit Criteria for Coating Evaluations (Laboratory) (Req'd for all Coatings audits - except suppliers using Nadcap approved AC7109/5 labs) (to be used on audits on/after 3 December, 2017)**

- Bond Strength – Tensile
- Erosion – Ambient
- Hardness – Rockwell
- Metallography/Microstructure
- Microindentation Hardness – Vickers
- Thickness – Metallographic

**AC7110/13 Rev B - Nadcap Audit Criteria for Evaluation of Welds to be used ON OR AFTER 5 MAY 2013**

DO NOT CHECK – INFORMATION ONLY – IF YOU ARE SELECTING THE AC7110/13 CHECKLIST YOU MUST ALSO SELECT AC7101/4 – Nadcap Audit Criteria for Materials Test Laboratories – Metallography and Microhardness

Supplement A – Metallurgical Evaluation of Welder / Welding Operator Qualifications (identify if this process is used)

Supplement B – Metallurgical Evaluation of Fusion Welds (identify if this process is used)

Supplement C – Metallurgical Evaluation of Electron Beam / Laser Welds (identify if this process is used)

Supplement E – Bend Test Evaluation of Electron Beam and Laser (for other testing purposes)

Supplement E – Bend Test Evaluation of Fusion Welds (for other testing purposes)

Supplement E – Bend Test Evaluation of Welder/Welding Operator Qualification Welds

**AC7110/13S Rev D - Nadcap Supplemental Audit Criteria for Evaluation of Welds to be used on audits ON OR AFTER 11 January 2015)**

U10 GE Aviation

U2 Pratt & Whitney

U3 Rolls–Royce plc

**ISO/IEC - Currently accredited by an ILAC approved source**

**Lab Type - Lab Type**

Independent