TCR ENGINEERING

PRESS RELEASE · AEROSPACE MATERIALS TESTING

FOR IMMEDIATE RELEASE

The TCR Group Is the First Indian Group with Two NADCAP AC7101 Materials Testing Laboratories

Aerospace-grade materials verification to the international NADCAP standard is now available at Navi Mumbai and Vadodara, removing a step that Indian aerospace suppliers have had to send overseas.

NAVI MUMBAI AND VADODARA, INDIA, 17 AUGUST 2026

The TCR group has become the first Indian group with two laboratories separately accredited by NADCAP for Materials Testing, both classified as independent laboratories, strengthening India's domestic capability to provide internationally recognised aerospace materials verification.

The two laboratories are TCR Engineering Services at Mahape, Navi Mumbai and TCR Advanced Engineering at Makarpura, Vadodara. They hold separate Performance Review Institute certificates, 29415245997 and 29227245998 respectively, for the same AC7101 Materials Testing scope. Both are valid to 31 May 2027 and both appear on the eAuditNet Qualified Manufacturers List, where any customer or prime can verify them directly.

Closing a gap in India's aerospace quality infrastructure

NADCAP accreditation is the qualification route that Airbus, Boeing, Safran, GE Aerospace, Rolls-Royce and the defence primes use to approve special processes and the laboratories that verify them. Indian manufacturers have built substantial NADCAP-accredited heat-treatment capacity. Accredited materials testing capacity, which is what verifies that the heat treatment achieved what it was meant to achieve, has been far scarcer.

The practical consequence for an Indian aerospace supplier has been that specimens travel. A test coupon has been packed, exported, tested abroad and the report returned, with freight cost, customs handling, foreign exchange outflow and several weeks of programme time attached to each cycle. Where the test now falls within TCR's accredited scope, that cycle can be completed within India, to the identical audit criteria.

> *"India has never been short of metallurgical talent. What the aerospace supply chain here has been short of is accredited capacity close to the part. An Indian manufacturer should not have to put a specimen on an aeroplane and wait three weeks to learn something a laboratory an hour away could have told them."*
>
> **Avinash Tambewagh, Technical Head, TCR Engineering Services**

The same standard, audited the same way

NADCAP accreditation is granted by the Performance Review Institute against a single global set of audit criteria. There is no national variant. The laboratory is audited on its calibration records, its operator qualification for each

specific method, its specimen geometry, its proficiency testing performance and its round-robin results, and it is audited on the same criteria in Navi Mumbai as in Ohio.

> *"An accredited code is a promise about a number. That number comes off a machine that has to be calibrated on the day, run by an operator qualified for that specific method, on a specimen machined to the geometry the standard specifies. Nadcap audits every one of those links, and it audits them at both our laboratories to the identical scope. There is no Indian version of AC7101. It is the same audit criteria, the same auditors and the same evidence that a laboratory in Ohio or Toulouse has to produce."*
>
> **Avinash Tambewagh, Technical Head, TCR Engineering Services**

What the accreditation covers

The accredited scope is the same at both laboratories. Under AC7101/3 it covers room-temperature tensile, elevated-temperature tensile, impact and bend testing. Under AC7101/4 it covers metallographic evaluation, interior microindentation, surface case depth by microindentation, near-surface alpha case on wrought titanium, carburisation and decarburisation, and grain size. Under AC7101/5 it covers Brinell, Rockwell and Vickers hardness together with electrical conductivity inspection. Under AC7101/7 it covers standard mechanical-testing specimen machining, and under AC7101/14 the proficiency testing and internal round-robin requirements that apply to every accredited laboratory.

CRITERIA	CATEGORY	ACCREDITED AT BOTH LABORATORIES
AC7101/3	Mechanical testing	Room-temperature tensile (A), elevated-temperature tensile (B), impact (N), bend testing (XN)
AC7101/4	Metallography and microindentation hardness	Metallographic evaluation (L0), microindentation interior (L1), surface case depth (L5), near-surface alpha case on wrought titanium (L8), carburisation and decarburisation (L10), grain size (L11)
AC7101/5	Hardness testing, macro	Brinell (M1), Rockwell (M2), Vickers (M3), electrical conductivity inspection (M4)
AC7101/7	Mechanical testing specimen preparation	Standard specimen machining (Z)
AC7101/14	Proficiency testing	Proficiency testing and internal round-robin requirements for all laboratories

Two capabilities in that list matter disproportionately to aerospace work. Near-surface alpha case evaluation on wrought titanium detects the brittle oxygen-enriched layer that forms when titanium is worked or heat treated in an uncontrolled atmosphere. Electrical conductivity inspection confirms the temper condition of aluminium alloys after heat treatment. Both are accredited at both laboratories, as is standard specimen machining under AC7101/7, which means specimens can be prepared inside the accredited operation rather than at a separately qualified source.

An independent laboratory, not a process house

Both certificates record the laboratory type as Independent. TCR holds AC7101 Materials Testing accreditation only. It does not hold and does not claim AC7102 heat-treatment accreditation, performs no heat treating and manufactures no aerospace parts. The separation is the point: the value of a verification result depends on the independence of whoever produced it.

Fifty-three years of metallurgical practice

TCR Engineering was founded in 1973 by V.K. Bafna, a gold-medallist metallurgist. Its Navi Mumbai laboratory is accredited to ISO/IEC 17025:2017 by NABL under certificate NABLT0726MH18640, covering 1,483 scope items, and NABL's signature to the ILAC Mutual Recognition Arrangement means its reports are accepted across more than ninety economies. The NADCAP accreditation sits on that management system rather than beside it.

> **TCR Engineering Services Pvt. Ltd.**
> VKB House, Plot No. EL-182, MIDC-TTC Industrial Area, Electronic Zone, Mahape, Navi Mumbai 400710, Maharashtra, India
> **PRI certificate 29415245997 · valid to 31 May 2027**

> **TCR Advanced Engineering Private Limited**
> 250-252/9, GIDC, Makarpura, Vadodara 390010, Gujarat, India
> **PRI certificate 29227245998 · valid to 31 May 2027**

About TCR Engineering Services

Established in 1973, TCR Engineering Services Pvt. Ltd. is an independent materials testing, non-destructive testing and asset integrity firm headquartered at Lower Parel, Mumbai, India, with its operating laboratory at Mahape, Navi Mumbai. Its parent laboratory is accredited to ISO/IEC 17025:2017 by NABL (certificate NABLT0726MH18640), and NABL is a signatory to the ILAC Mutual Recognition Arrangement, under which its reports are accepted across more than ninety economies. The TCR group operates in four countries, India, Saudi Arabia, Qatar and Kuwait, and serves customers in energy, metals, manufacturing, infrastructure, mobility and aerospace. TCR Advanced Engineering Pvt. Ltd., Vadodara, is a group company providing asset integrity engineering, contract research and materials testing.

— ENDS —

MEDIA CONTACT

Atul Yadav, HR Manager (Public Relations and Government Liaison)
TCR Engineering Services Pvt. Ltd., Mahape, Navi Mumbai
pr@tcreng.com

Rohit Bafna, President
+91 98335 30400 (voice and WhatsApp)
pr@tcreng.com
www.tcreng.com

Press kit, high-resolution images and both certificates: https://www.tcreng.com/newsroom/nadcap-press-kit/