

Laboratory

Product Proving Laboratory – Tata Toyo Radiator Ltd., Plot No. T-90,
MIDC, Bhosari, Pune, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6878 (in lieu of T-3792)

Page 1 of 2

Validity 05.02.2018 to 04.02.2020

Last Amended on 07.02.2018

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

MECHANICAL TESTING

I.	AUTOMOTIVE COMPONENTS			
1.	Radiator, EGR Cooler, Mirror, Intercooler Heater - Core HVAC Assembly, Condenser, DAT	Vibration (Single axis at a time)	JIS D 1601	Sine load: 2000 kgf Sine 1 m x 1 m 5 Hz to 2000 Hz (20g bare table) (-)40 °C to 150 °C, 2°C/min 3500 kgf Sine 914 mm x 914 mm, Head Expenders diameter: 1.3 m 5 Hz to 2000 Hz 76g (bare table)
2.	Radiator, Heater Core DAT	Pressure Cycle-(Coolant)	SAE J 1597	Upto 130 °C Upto 100 L/min Upto 10 bar (2 Hz cycle rate, 6 components at a time)
3.	Radiator, Intercooler, DAT, Heater Core, Condenser Oil Cooler Evaporator, EGR Cooler	Static Burst Pressure (Auto)	TTR Test Method No. TTR-PPL-TMD-BPT Rev. 1, March 2016	Upto 160 bar 1 bar/min to 10 bar/min
4.	Intercooler	Millipore (Internal Cleanliness)	SAE J 1726, Clause no.4.4	Upto 300 g Upto 5 µm filter paper
5.	Pressure Cap	Vacuum Valve Opening Measurement	JIS D 2502-2, Clause no.7b	Upto 10 kPa
6.	Intercooler	Leakage	SAE J 1726, Clause no.6.1	Upto 6 bar

Nikhil Kumar
Convenor

N. Venkateswaran
Program Director

Laboratory **Product Proving Laboratory – Tata Toyo Radiator Ltd., Plot No. T-90, MIDC, Bhosari, Pune, Maharashtra**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6878 (in lieu of T-3792)**

Page 2 of 2

Validity **05.02.2018 to 04.02.2020**

Last Amended on 07.02.2018

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
7.	Raw Material of Radiator, Intercooler, Heater Core, Condenser, EGR Cooler, Aluminum & steel parts of Engine Cooling	Optical Metallography for linear thickness measurement of raw material	ASM volume 9 (Page no- 229 to 313, 325 to 354, 711 to 751)	10 µm to 1600 µm (Magnification 50X, 100X, 200X and 500X)

Nikhil Kumar
Convenor

N. Venkateswaran
Program Director