

Laboratory TQE Labs, A-150, Sector A-4, Tronica City, Loni, Ghaziabad, Uttar Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7453

Page 1 of 2

Validity 22.06.2018 to 21.06.2020

Last Amended on --

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

### MECHANICAL TESTING

<b>I. AUTOMOTIVE COMPONENTS</b>				
<b>1.</b>	<b>Pneumatic Tubes</b>	Thickness Uniformity	IS 13098 (Clause 3.3.1)	1 % to 1000 %
		Elongation at break	IS 3400 (Part 1)	1 % to 1000 %
		Set After Aging	IS 13098 (Clause 4.1.3)	1 % to 100 %
		Strength of Splice	IS 3400 (Part 1)	(100 to 500) N/mm <sup>2</sup>
		Air Tightness	IS 13098 (Clause 5)	Qualitative
<b>II. PERFORMANCE / DURABILITY / SAFETY TEST</b>				
<b>1.</b>	<b>Domestic Gas Stoves for use with LPG</b>	Construction and Performance Tests	IS 4246	
		Gas Soundness	IS 4246 (Clause 13)	Qualitative
		Strength and Rigidity	IS 4246 (Clause 15)	0.01 mm to 10 mm
		Gas Consumption	IS 4246 (Clause 17)	(0.02 to 200) L/hour
		Ignition and Flame Travel	IS 4246 (Clause 18) IS 5116	Qualitative
		Flame Stability	IS 4246 (Clause 19)	Qualitative
		Noise Control	IS 4246 (Clause 20)	Qualitative
		Flash Back	IS 4246 (Clause 21)	Qualitative
		Formation of Soot	IS 4246 (Clause 22)	Qualitative
		Resistance to draught	IS 4246 (Clause 23)	Qualitative
		Combustion	IS 4246 (Clause 24)	Qualitative
		Fire Hazard and limiting temperature	IS 4246 (Clause 25) IS 5116	0.1°C to 600°C
		Thermal Efficiency	IS 4246 (Clause 26)	0.1 % to 100 %
<b>2.</b>	<b>Domestic Pressure cooker</b>	Capacity	IS 2347 (Clause 4)	1 L to 22 L
		Air Pressure	IS 2347 (Clause 8.1)	Qualitative
		Proof Pressure	IS 2347 (Clause 8.2)	Qualitative
		Pressure Regulating Device (Operating Test)	IS 2347 (Clause 8.3)	(0.05 to 2.1) kg/cm <sup>2</sup>

Laboratory TQE Labs, A-150, Sector A-4, Tronica City, Loni, Ghaziabad, Uttar Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7453

Page 2 of 2

Validity 22.06.2018 to 21.06.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Pressure Relief Device (Safety Test)	IS 2347 (Clause 8.4)	0.1 kg/cm <sup>2</sup> to 4.2 kg/cm <sup>2</sup>
		Bursting Pressure	IS 2347 (Clause 8.5)	0.2 kg/cm <sup>2</sup> to 14 kg/cm <sup>2</sup>
		Test for Removal of Lid Under Pressure	IS 2347 (Clause 8.6)	Qualitative
3.	<b>Door Closers</b>	Endurance Test	IS 3564 (Clause 10)	Qualitative
		Essential Requirements - Size and Type 2 - Closing Time (Ambient) - Closing Time (Low Temperature)	IS 3564 (Clause 8.1) IS 3564 (Clause 8.2) IS 3564 (Clause 8.3)	Qualitative 5 s to 20 s 5 s to 20 s
		Performance requirement - Closing Angle (Ambient) - Closing Angle (High Temperature)	IS 3564 (Clause 10)	15 ° to 25°
1.	<b>Protective Helmets for Motor Cycle Riders</b>	Impact Absorption Test	IS 4151 (Clause 9.1)	0.01g to 999.99 g
		Resistance to Penetration	IS 4151 (Clause 9.2)	0.1 mm to 55 mm
		Rigidity Test	IS 4151 (Clause 9.3)	0.1 mm to 530 mm
		Dynamic Test of Retention System	IS 4151 (Clause 9.4)	Qualitative
		Audibility Test	IS 4151 (Clause 9.5)	90dB to 115 dB
		Retention Test	IS 4151 (Clause 9.6)	Qualitative
		Flexibility of peak	IS 4151 (Clause 9.8)	0.1 mm to 100 mm
		Opening Angle	IS 4151 (Clause 9.7) IS 9973	1° to 90°
2.	<b>Visor for Scooter Helmets</b>	Impact Resistance	IS 9973 (Clause 5.1)	Qualitative
		Penetration Resistance	IS 9973 (Clause 5.2)	Qualitative
		Optical Requirement	IS 9973 (Clause 5.4.3)	(0.25 to 20) dioptr
		Field of vision	IS 4151 (Clause 5.5) IS 9973	Qualitative
		Workmanship & Finish	IS 9973 (Clause 6)	Qualitative
		Mass	IS 9973 (Clause 7)	0.001 kg to 10 kg