ilac-MRA

A-NaLiTiCa

Association of the Analytical Centers "Analitica"
Accreditation Body
Full Member and Signatory to ILAC and APLAC
Mutual Recognition Arrangements

Accreditation certificate

№ AAC.T.00338

Valid till
November 17, 2020

Accreditation Body AAC "Analitica" certifies, that

Laboratory of Iran Test & Research Center for Auto parts and Components (ITRAC Co.)

Legal and actual address: 12 TH Km Shahid Lashkari Express way-Tehran-Iran
was accredited in accordance with
the requirements of International Standard

ISO/IEC 17025:2005
(GOST ISO/IEC 17025 - 2009).

This accreditation demonstrates technical competence
in the defined scope and operation of
the laboratory quality management system
(ref. to Joint ISO-ILAC-IAF Communiqué dated April 2017).
The scope of the laboratory (center) accreditation is described in the
Appendix, which is an integral part of this Certificate.

Head of
Accreditation body

I. Boldyrev
November 17, 2017

119049, Moscow, Leninskiy prospekt, 1/ 2, korp.1, apt.1320
+7 (495) 959-93-43, 959-93-33, 959-93-17

«УТВЕРЖДАЮ»
Управляющий органом по аккредитации
ААЦ «Аналитика»
И.В.Болдырев
2019 г.
08.04.

Взамен приложения к аттестату
аккредитации № ААС.Т.00338
От 17. 11. 2017

Область аккредитации

The scope of Accreditation
Laboratory of Iran Test & Research Center for Auto parts and Components (ITRAC Co.)
Лаборатория ИТРАК Ко.

12TH Km Shahid Lashkari Express way -Tehran –Iran

Иран, Тегеран, 12 километр шоссе Шахид Лашкари

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Chemistry Lab				
1	Refrigerant Gas	Moisture , determination of water content	0.1 Up to 1000 ppm	ARI 700-99 Appendix C -Part 2
2	Refrigerant Gas	Air , determination of non-condensable gas	0 Up to 3%	ARI 700-99 Appendix C – Part 5

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
3	Sintered Metal Structural parts	Density of porosity	Depends on product	ASTM B328-96 1996
4	Copper Alloy metal parts	Concentration of Cu	40 Up to 100%	SOP C005 2003-01, ASTM E53-07(Reapproved 2013)
5	Metal parts	Density	1.5 Up to 10 g/cm^3	SOP C009 2003-05 , ISO 3369-2006
6	Aqueous solution	pH	1-14	DIN 38404-5 1994
7	Coated metal parts	Visual Corrosion	0-100 % corrosion , Visual grading 0-9	DIN 50021 1988-06 ASTM-B117 (2003) 1997 Chrysler LW4010 1974-09 Peugeot D171058 1997, B
8	Electrodeposited coatings of zinc on Iron and steel	All characteristics of galvanized coatings	Corrosion : 0-100% Adhesion : a to e	Chrysler CB3000 1975-04
9	Paint and Viscid Polymeric	Visual effect of cold	Any changes after test you can see by eye	Chrysler LP/500/526 1973-06
10	Metallic finishes parts	Visual Corrosion	0-100 % corrosion	Chrysler LW4020 1974-09 Peugeot D231001 2008, B
11	Paint coatings on metal, rubber or plastic – self colored rubber parts, plastic parts	Gloss	20°: >70UB 10 UB< 60°<70UB 85°< 10 UB	Peugeot D251413 1997, C
12	Material and parts in the passenger compartment	Deterioration and color transfer	Gray scale grade (1-5)	Peugeot D471025 1999, G

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
13	Paint and varnished coated parts	Hardness of paint	For glass plate 420 – 440 s	Peugeot D251298 1996, A
14	Paint and similar products coated parts	Change in color or tending to bleaching	Gray scale grade (1-5)	Peugeot D275144 1997, A Peugeot D491561 2008, D
15	Opaque colored products	Parameters of color (l, a, b, ΔE)	0 < L <100	Peugeot D155083 1997, B Peugeot D155084 1997, C
16	Paint coated parts	Blistering	Grading (0-4)	Peugeot D271571 2012, F
17	Paint coated parts	Detachment of paint to substrate	Grading from a to e (0-100%)	Peugeot D251075 2007, D
18	Paint coated parts	Visual changes	Grading from a to e (0-100%)	Peugeot D271327 2013, E
19	All materials and parts in polymer located in the passenger compartment inner and outer.	Visual change of color	Gray scale grade (1-5)	Peugeot D451010 2010, H
20	Water	Conductivity	1 Up to 10mS /cm	DIN EN27888 1993
21	All materials and parts located in the passenger compartment	Visual inspection Change in color	Gray scale grade (1-5)	SOP C008 2003-05, D471431
22	Coating and parts in the passenger compartment	Deterioration and color transfer	Gray scale grade (1-5)	Peugeot D471020 2006, F
23	Textiles in the passenger compartment	Deterioration and color transfer	Gray scale grade (1-5)	Peugeot D471021 1999, D Peugeot D471022 1999, E

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
24	Textiles in the passenger compartment	Color transfer	Gray scale grade (1-5)	Peugeot D471005 2010, C
25	Non-magnetic coatings on magnetic substrates	Coating thickness	0 to =>200µm	ISO 2178 1982-08
26	Polymer parts & Painted parts	visual	master plates of color & grain for automotive parts	Peugeot D151343 1997, E
27	Paint coated parts	Visual	0<Time <30min	Peugeot D275437 1998, OR
28	All Plastic parts & painted parts	Visual	Gray scale grade (1-5)	Peugeot D475243 2008, C
29	Organic coating on magnetic or nonmagnetic metallic base	Coating thickness	1 to =>200µm	Peugeot D265316 2008, B
30	Catalysts for exhaust silencers	Loading of Pt & Pd & Rh Quantitative analysis of elements (Pt & Pd & Rh)	0 Up to 5 kg/m³	Peugeot D405350 2001, E
31	All metal parts with metallic coating	Concentration of Co, Zn, Cu, Al in coating Quantitative analysis of elements(Co, Zn, Cu, Al in coating)	0 Up to 10000ppm	PSA D205333
32	Coolant liquids	Concentration of Br Determination of B	0 Up to 1000ppm	PSA D505178
33	Polymer parts	Concentration of Hg, Pb, Cu, Cr Determination of Hg, Pb, Cd, Cr	0 Up to 1000ppm	IEC 62321-4
34	All polymer materials	Melting point	-70℃ to +400 ℃	ASTM E 794
35	All polymer base materials	Kind of polymer base & inorganic filler	All polymer base	ASTM- E1252-98 (2007)
36	Ceramic base monolith	Visual changes	Crack , softening	PSA B223215

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
37	Ceramic base monolith	Cracking on ceramic Resistance to temperature	All corderit base	PSA B223215
38	Inorganic base Matt	Moisture LOI Fiber Vermiculite	0 Up to 100%	KES T-L461A-9
39	Inorganic base Matt	Weight	0.1 Up to 2500 g	KES T-L461A-7
40	Inorganic base Matt	Thickness	0.1 Up to 200mm	KES T-L461A-6
41	Inorganic base Matt	Dimension	0.1 Up to 200mm	KES T-L461A-6 KES T-L461A-8
CNG Lab				
42	CNG tank & kit Hydraulic pipe refueling connector LPG tank & kit	Pressure	0-150 MPa	ECE R 110, A-12 30 may 2008& ISIRI 7598/ 12-33
				SAE J 1401 , 4.2.1 2003 & ISIRI 5901 6-2
		Leak	No leak	SAE J 1401 , 4.2.4 2003& ISIRI 5901 6-5
				ISO 14469 – 3 ,10-12 2017-01
				ECE R67, Annex 15-4 16 Oct 2014
43	CNG tank & kit	Pressure	0-50 MPa	ECE R 110 , A.13 30 may 2008 & ISIRI7598/13-33
44	CNG tank & kit	Temp	-40/180℃	ECE R 110 , A.24 30 may 2008& ISIRI7598/37

08. 04. 2019

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
45	CNG tank & kit	Pressure	0-50 MPa	ECE R 110 , A.6 30 may 2008& ISIRI7598/6-33
46	CNG tank & kit	Pressure	0-150 MPa	ECE R 110 , A.11 30 may 2008، ISIRI7598/11-33
47	CNG tank & kit	Pressure	0-150 MPa	ECE R 110, Annex 5A 30 may 2008& ISIRI7598/62
48	CNG tank & kit refueling connector LPG tank & kit	Pressure	0-30 MPa	ECE R 110 , Annex 5B 30 may 2008 & ISIRI7598/63
				ISO 14469 – 3 ,10-5 2017-01 & ISIRI 10705
		Leak	No Leak	ISO 14469 – 3 ,10-10 2017-01 & ISIRI 10705
				ECE R 67 , Annex 15-5 16 Oct 2014
49	CNG tank & kit LPG tank & kit	Pressure	0-30 MPa	ECE R 110 , Annex 5C 30 may 2008 & ISIRI7598/64
		Leak	No Leak	ECE R 67 , Annex 15-8 16 Oct 2014
50	CNG tank & kit	Pressure	0-30 MPa	ECE R 110 , 5H 30 may 2008 & ISIRI7598/69
		Temp	-40/180 ̊c	
51	CNG tank & kit refueling connector	Pressure	0-40 MPa	ECE R 110 , 5L 30 may 2008 & ISIRI7598/70
				ISO 14469 – 3 ,10-11 2017-01 & ISIRI 10705.

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Electronic Lab				
52	Fuse	Voltage Drop	From 10mv to 1000mv	ISO8820-3:2015-09-15(5.2)
53	Fuse	Operating Time Rating	From 10ms to 400000 s	ISO8820-3:2015-09-15(5.5)
54	Fuse	Current Steps	From 1A to 400A	ISO8820-3:2015-09-15(5.6) IS08820-1:2014-12-01 (5.6)
55	Fuse	Environmental Condition	Physically intact / not physically intact & Operating time rating From 5ms to 400000 s	IS08820-3:2015-09-15 (5.4) IS08820-1:2014-12-01(5.4.3.1)
56	Fuse	Resistance Against Thermal Shock	Physically intact / not physically intact & Operating time rating From 5ms to 400000 s	IS08820-3:2015-09-15 (5.4) IS088201:2014-12-01(5.4.3.2)
57	Relays	Dielectric strength test	With / without damage during the test	BS EN 2349-303
58	Relays	Insulation resistance	Insulation resistance from 1 Ω to 100 GΩ	BS 5992-3
59	Relays	climatic	Insulation resistance from 1 Ω to 100 GΩ	BS EN 2349-407
60	Relays	Coil current	0.1mA ~ 1A	EN 2349-308
61	Relays	Resistance to overload	With / Without electrical or mechanical failure	BS EN 2349-306

08. 04. 2019

Приложение к аттестату
аккредитации № AAC.1.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Electrical machines Lab				
62	Geared Motor For Frontal Windscreen	Speed-N(rpm) Torque-C(Nm) Electrical Current-I(A)	**Low speed:** Class A: Speed: 0-75rpm Torque: 0-30N.m Current:0-30A Class B: Speed: 0-75rpm Torque: 0-33N.m Current:0-30A Class C: Speed: 0-75rpm Torque: 0-40N.m Current:0-30A **High speed:** Class A: Speed: 0-85rpm Torque: 0-30N.m Current:0-30A Class B: Speed: 0-85rpm Torque: 0-30N.m Current:0-30A Class C: Speed: 0-76rpm Torque: 0-31N.m Current:0-30A	C866250/D Pa:4-3-2-1

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
EMC Lab				
63	Electric and Electronic Parts of commercial Vehicles.	Immunity to Coupling 3a and 3b pulses on signal lines	Transient pulse type 3a and 3b. Pulse amplitude is -1000V up to +1000V	ISO 7637-3:2016(E), he Capacitive Coupling lamp (CCC) method, 12/24V ystems. -ECE R10 (Regulation 10), Clause 6.7. -INSO-UNECE-R10 1st.Edition 2016 Endorsement of UNECE R10 (REV 5): 2014. - PSA PEUGEOT-CITROEN B21 7110E, Clause 7.2.1. EQ/IC 07: Immunity to the transients on the signal lines.
64	Electric and Electronic Parts of commercial Vehicles.	Immunity to unusual supply voltages, short circuit and some type of pulses defined in test methods	Power supply range is -60V up to +60V @ 35A Pulse1 up to -600V Pulse2a up to +112V Pulse2b up to + 20V Pulse3a up to -1000V Pulse3b up to +1000V	- ISO 7637-2:2011(E). -ECE R10 (Regulation 10), Rev. 05, Clause 6.9. -INSO-UNECE-R10 1st.Edition 2016 Endorsement of UNECE R10 (REV 5): 2014. - PSA PEUGEOT-CITROEN B21 7110E, clauses - 7.4.1. EQ/MC 01, - 7.1.4. EQ/TE 02, - 7.1.5. EQ/TE 03, - 7.1.6. EQ/TE 04, - 7.1.7. EQ/TE 05, 7.1.9. EQ/IC 01(Exception: there is no Climatic chamber for the tests at extreme temperatures), - 7.1.10. EQ/IC 10, - 7.1.11. EQ/IC 02, - 7.1.12. EQ/IC 03, - 7.1.13. EQ/IC 04, - 7.1.14. EQ/IC 05, - 7.1.16. EQ/IC 13, - 7.1.17. EQ/IC 06.

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
65	Electric and Electronic Parts of commercial Vehicles. Note: Maximum DUT (Devise Under Test) size A (L*W*H):30cm*30cm*15cm. and size B (L*W*H):10cm*10cm*5cm.	Immunity to Radiated Electromagnetic Field	Frequency: 10kHz up to 2GHz E-Field up to 100V/m for DUT size A E-Field up to 200V/m for DUT size B	- ECE R10 (Regulation 10), Rev. 05, Clause 6.8. -INSO-UNECE-R10 1st.Edition 2016 Endorsement of UNECE R10 (REV 5): 2014. - PSA PEUGEOT-CITROEN B21 7110E Clause 7.2.4. EQ/IR 01. Note: There is no Semi-anechoic chamber, GTEM cell 500 is used.
66	Electric and Electronic Parts of commercial Vehicles.	Radio Frequency Conducted Noises on the Power Supply Inputs	Frequency: 100kHz up to 150MHz Maximum current is 100A	- CISPR 25 (2016), Clause 6.3. - PSA PEUGEOT-CITROEN B21 7110E, Clause 7.3.3. EQ/MC 03. Exception: - There is no shielded room.
67	Electric and Electronic Parts of commercial Vehicles and Vehicles of categories L, M, N and O. Exception: no hybrid or Electrical vehicles	Radio Frequency Radiated Electric Field	-Frequency range for vehicles measurement: 30MHz up to 3GHz -Frequency range for Electric and Electronic Parts measurement: 150kHz up to 3GHz	-ECE R10 (Regulation 10), Rev. 05 , Clause 6.2, 6.3, 6.5 and 6.6. -INSO-UNECE-R10 1st.Edition 2016 Endorsement of UNECE R10 (REV 5): 2014. - CISPR 25 (2016), Clause 6.5. - PSA PEUGEOT-CITROEN B21 7110D Clause 7.3.6. EQ/MR 01. Exceptions: -There is no Semi-anechoic chamber; test is done in Open Area Test Site (OATS). -There is no Vertical mono-pole 1 m for low frequency, 150kHz up to 30MHz, in this range; test is done using GTEM Cell 500.

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
68	Electric and Electronic Parts of commercial Vehicles.	Immunity to Electro Static Discharges (ESD)	ESD Pulse up to 30kV	-IEC 61000-4-2. -ISO 10605. -PSA PEUGEOT-CITROEN B21 7110 E, clauses 7.2.8. EQ/IR 03 and 7.2.9. EQ/IR 04.
69	Electric and Electronic Parts of commercial Vehicles.	Switching Noise	Max. Switching current: 25A Voltage range: 0-30 VDC Switching time: 300-400ms Switching off time: 10ms/ 200ms	- ISO 7637-2: 2011(E), Clause 4.3 . -ECE R10 (Regulation 10 Rev.05),Clause 6.7. -INSO-UNECE-R10 1st.Edition 2016 Endorsement of UNECE R10 (REV 5): 2014. -B21 7110E, Clause 7.3.1. EQ/MC 01.
Engine Lab				
70	Automotive Engine & Engine components	No failure during 500&800hr Endurance test	Up to 240kW,600N.m,1000rpm	Peugeot T2752 1999-12
71	Automotive Engine & Engine components	No failure during 110hr over speed test	Up to 240kW,600N.m,1000rpm	Peugeot T2753 1997-03
72	Automotive Engine & Engine components	No failure during 15hr Running-in test	Up to 240kW,600N.m,1000rpm	Peugeot T2808 1997-05
73	Automotive Engine oil consumption measurement	oil consumption measuring data	Up to 5 kg/h	Peugeot T3018 1997-04
74	Automotive Engine & Engine components	Engine power , Torque & fuel consumption	Up to 240kW,600N.m,1000rpm,150kg/h	Peugeot T3344 1999-03
75	TU5 engine &TU5 engine components	No failure during 500hr Endurance test	Up to 240kW,600N.m,1000rpm	Peugeot WD270204TU 2004-03
76	Automotive Engine & Engine components	No failure during 150hr Max. power test	Up to 240kW,600N.m,1000rpm	Peugeot WD270204TU 2004-02
77	Automotive Engine & Engine components	No failure during 200hr timing wear resistance test	Up to 240kW,600N.m,1000rpm	Peugeot T3007 1997-07

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
78	Automotive Engine & Engine components	No failure during 200hr Japan &Taxi test	Up to 240 kW,600N.m,1000rpm	Peugeot PIBAE 93 015 2004-11
79	TU5 engine &TU5 engine components	No failure during 110hr TU5 over speed test	Up to 240 kW,600N.m,1000rpm	Peugeot WD270204TU 2004-03
80	Automotive Engine pistons	No failure during seizure 50hr test	Up to 240 kW,600N.m,1000rpm	Peugeot B421320 2004-12
81	Automotive Engine pistons	No failure during piston seizure 50hr test	Up to 240 kW,600N.m,1000rpm	Peugeot T2996 1997-05
82	Automotive Engine pistons	No failure during cold piston seizure 30min test	Up to 240 kW,600N.m,1000rpm	Peugeot T3055 1997-07
83	Automotive Engine & Engine components	No failure during engine endurance test	Up to 240 kW,600N.m,1000rpm	Peugeot T3352 1998-02
84	Automotive Engine & Engine components	Engine power , Torque & fuel consumption	Up to 240 kW,600N.m,1000rpm,150kg/h	DIN 70020 1974
85	Automotive Engine & Engine components	No failure during engine 500hr endurance test	Up to 240 kW,600N.m,1000rpm	Chrysler 1D/A1/0004 1970-07
86	Automotive Engine pistons	No failure during cold piston seizure 30min test	Up to 240 kW,600N.m,1000rpm	Peugeot MI BAE 94 052 2004-12
87	Automotive Engine Blow-by	Engine blow-by measuring data	Up to 150 lit/min	Peugeot T2984 1997-05
88	Automotive Engine Blow-by	Engine blow-by measuring data	Up to 150 lit/min	Peugeot AGMP_VIMP02_127 2004-09

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Environmental Lab				
89	Parts of vehicle	Ageing	-40 ℃ Up to 180 ℃	D471309
Fueling and Cooling Lab				
90	Fuel pump (Peugeot 405)	(durability) 1.Temperature 2.Current 3.Volumetric flow	1. -22 ºC to 100 ºC 2. 0 A to 8 A 3. 0 lit/h to 150 lit/h	DMOV-CAR01-0100-A 2001
91	Fuel pump (Peugeot 206)	(durability) 1.Temperature 2.Current 3.Volumetric flow	1. -22 ºC to 100 ºC 2. 0 A to 8 A 3. 0 lit/h to 150 lit/h	STE9632241799A 2001
92	Fuel tanks	1.Temperature 2. Pressure 3.Mass flow	1. -40 ºC to 100 ºC 2. 0 Pa to 0.2 MPa 3. 0 g/day to 40g/day 0 g/min to 30g/min	ECE R 34 – July 2003 & ISIRI 6480
93	Vacuum Caps	1. Pressure 2. Vacuum 3. Volumetric flow	1. 0 Pa to 0.2 MPa 2. 0 Pa to 0.01MPa 3. 0 lit/h to 150 lit/h	PSA- B226272-A 1994 PSA B226274 – 2003 Item8-4

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Lighting Lab				
94	Rear registration lamp	Photometry	From 0.0001cd/m² to 2×107 cd/m²	ECE R4 ISIRI 6495 INSO-UNECE-R 4
		colorimetry	xyz tristimulus color (0 to 1)	
95	Direction indicator lamps	Photometry	0.001cd to 3.999kcd	ECE R6 ISIRI 6505 INSO-UNECE-R 6
		colorimetry	xyz tristimulus color (0 to 1)	
96	front and rear position lamps, stop-lamps and end-outline marker lamps	Photometry	0.001cd to 3.999kcd	ECE R7 ISIRI 6651 INSO-UNECE-R 7
		colorimetry	xyz tristimulus color (0 to 1)	
97	Side Marker Lamps	Photometry	0.001cd to 3.999kcd	ECE R 91 INSO-UNECE-R 91
		colorimetry	xyz tristimulus color (0 to 1)	
98	Reversing and maneuvering lamp	Photometry	0.001cd to 3.999kcd	ECE R23r4 ISIRI 6492
		colorimetry	xyz tristimulus color (0 to 1)	
99	Rear fog lamp	Photometry	0.001cd to 3.999kcd	ECE R38 ISIRI 6504 INSO-UNECE-R 38
		colorimetry	xyz tristimulus color (0 to 1)	
100	whole vehicle	reflectivity	0-100%	ECE R46 INSO-UNECE-R 46 DIN 5036 (test method)
		Installation of devices for indirect vision	All type of the vehicle	
		radius of curvature	All type of the mirrors	
		Field of vision	All type of the vehicle	
		Impact test	All type of the mirrors	

Приложение к аттестату
аккредитации № AAC. T. 00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
101	Bulbs	Luminous flux	0.001lm to 600klm	ECE R37 ISIRI 6004 IEC 60809 ISIRI 6614 IEC 60810) INSO-UNECE-R 37
102	Headlamps	Photometry	0.001lx to 200klx	ECE R1&2 ECE R5 ECE R8 ECE R20 ECE R112 ISIRI 6672 ISIRI 10457 ISIRI 10458
		Colorimetry	xyz tristimulus color (0 to 1)	
		Cut-off stability	0-10mrad	
103	Front fog lamp	Photometry	0.001lx to 200klx	ECE R19 ISIRI 6488 INSO-UNECE-R 19
		colorimetry	xyz tristimulus color (0 to 1)	
104	Daytime Running Lamp	Photometry	0.001cd to 3.999kcd	ECE R87 ISIRI 20457
		colorimetry	xyz tristimulus color (0 to 1)	
105	Parking Lamp	Photometry	0.001cd to 3.999kcd	ECE R77 ISIRI 7033
		colorimetry	xyz tristimulus color (0 to 1)	
106	Retro reflectors	Retro-reflection coefficient	0.1mcd/lx to 199900mcd/lx	ECE R3 ISIRI 6494 INSO-UNECE-R 3
107	Triangles	Retro-reflection coefficient	0.1mcd/lx to 199900mcd/lx	ECE R27 ISIRI 3585
108	whole vehicle	Installation of Lamps	All type of lamps	ECE R48 ISIRI 6479
109	whole vehicle	Identification of controls	All type of the vehicle	ECE R121 INSO-UNECE-R 121 ISIRI 6493

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
110	Glass	Transmittance factor	0-100%	ECE R43 ISIRI 6670 INSO-UNECE-R 43
111	Motorcycle	Photometry	0.001lx to 200klx 0.001cd to 3.999kcd	ISIRI 10283
		colorimetry	xyz tristimulus color (0 to 1)	
112	Tractor	Installation of lamps	All type of lamps	ECE R86 ISIRI13169
113	Tractor	Photometry	0.001lx to 200klx 0.001cd to 3.999kcd	ISIRI 13150
		colorimetry	xyz tristimulus color (0 to 1)	
Mechanic Lab				
114	Front Seats of Vehicles	Head Rest Displacement	1 – 200 mm	ECE R17 ISIRI 6503 INSO-UNECE-R17
115	Parts of Vehicles	Force measuring	1 – 150000 N	SOP-F-001 : 1396
116	Parts of Vehicles	Torque measuring	0.1 – 500N.m	SOP-F-002 : 1396
117	Engine Flexible mounting and Flexible part of Suspension System	Static Stiffness measuring	1 – 5000daN/mm	B 313735
118	Doors, Locks and Hinges of Vehicles	Effect of Force	Withstands / does not stand	70/387/EEC ISIRI 6773 INSO-UNECE-R11

Приложение к аттестату
аккредитации № AAC. T. 00336
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Mechanism Lab				
119	Lamp ECU Key	Resistance to Dust	All type of lamps	B384145
120	Lock	Endurance	Withstands / does not stand	B284110
121	Lifting Jack	Endurance	Withstands / does not stand	According to Suppliers Drawing
122	Side Window Regulator	Endurance	Withstands / does not stand	B284250
123	Combination Switches	Endurance	Withstands / does not stand	Fr3010
Metallurgy Lab				
124	Metallic Materials	Brinell Hardness	HB 2.5-62.5 ≤ 250 HB 2.5-187.5 ≤ 450 HB 1-10 ≤ 250 HB 10-3000 250 ≤ HB ≤ 450	ASTM E10-01 BS EN ISO 6506-1 ISIRI 7809-1
125	Metallic Materials	Rockwell Hardness Rockwell Superficial	HRC 10 ~ 70 HRB 10~100 HRA 20~75	ASTM E 18-17 BS EN ISO 6508-1 ISIRI 7811-1

Приложение к аттестату
аккредитации № AAC.7.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
126	Metallic Materials	Vickers Hardness	HV0.3 ≥ 225 HV0.5 ≥225 HV1 ≥225 HV5 Whole range HV10 Whole range HV30 ≥225 HV100 ≥225	ASTM E384 BS EN ISO 6507-1 ISIRI 7810-1 ASTM E-92-16
127	Metallic Materials	Indentation Hardness by Portable Hardness testers	D: Max 940 HV DL: Max 950 HV	ASTM E 110-82 Last Edition
128	Metallic Materials	Case Depth	Surface to core of sample ≥ 0 mm	SAE J 423 DEC83 Last Edition
129	Metallic Materials	Charpy impact test	0 ~ 150 J 0 ~ 300 J	DIN EN 10045-1 ASTM E 23-02
130	Metallic Materials	Mechanical testing	0 ~ 2kN 0 ~ 50kN 0 ~ 250kN	ASTM A370-03 ASTM B557-02 ASTM E8M-01 BS EN 10002-1 BS EN ISO 6892-1
131	Metallic Materials	Evaluating the Microstructure of Graphite in Iron Castings	Cast iron	ASTM A 247-67 Last Edition
132	Coating	Thickness of coating	≥ 0 microns	ASTM B 487 Last Edition

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
133	Decarburization	Estimating the Depth of Decarburization	≥ 0 microns	SAE J 419 ASTM E 1077-01
134	Grain Size	Determining Average Grain Size	1 ~ 14	ASTM E112-2013 NFA04-102
135	Grey cast Irons	Founding - Grey Cast Irons	Gray cast iron	DIN EN 1561-2012
136	Non-Metallic Inclusions	Metallographic Examination; Microscopic Examination of Special Steels Using Standard Diagrams to Assess the Content of Non-Metallic Inclusions	Type of inclusions (A,B,C,D) (SS,OS,OG,OA)	DIN 50602-1985 NFA04-106 EN10247-2007
137	Metallic Materials	Analysis by Spark Atomic Emission Spectrometry	Fe 0-100% Al 0-100% Cu 0-100% Zn 0-100%	ASTM E415-2015 ASTM E1251-2011 DIN EN 15079-2015 ASTM E1086-2014 ASTM E1999-2011
138	N.D.T	Magnetic Particle Testing	Accepted / Not accepted	ASTM E709-2015 ASTM E1444-2012
139	N.D.T	Ultrasonic Pulse Echo Straight Beam Contact Testing	Accepted / Not accepted	ASTM E114-2015
140	N.D.T	Liquid Penetrant Examination for General Industry	Accepted / Not accepted	ASTM E165-2012
141	N.D.T	Standardizing Equipment for Electromagnetic Testing of Seamless Aluminum-Alloy Tube	Accepted / Not accepted	ASTM E215-2011

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Metrology Lab				
142	Vehicle Parts	Length	0-900mm	SOP-F111/B
143	Vehicle Parts	Diameter	0-900mm	SOP-F112/B
144	Vehicle Parts	Angle	0-360°	SOP-F113/B
145	Vehicle Parts	Straightness	0-1000mm	SOP-F114/B
146	Vehicle Parts	Flatness	0-1000mm	SOP-F115/B
147	Vehicle Parts	Roundness	0-500mm	SOP-F116/B
148	Vehicle Parts	Cylindercity	0-500mm	SOP-F117/B
149	Vehicle Parts	Simple Profile	0-500mm	SOP-F118/B
150	Vehicle Parts	Total Profile	0-500mm	SOP-F119/B
151	Vehicle Parts	Parallelism	0-500mm	SOP-F120/B
152	Vehicle Parts	Perpendicularity	0-500mm	SOP-F121/B
153	Vehicle Parts	Angularity	0-500mm	SOP-F122/B
154	Vehicle Parts	Position	0-500mm	SOP-F123/B

Приложение к аттестату
аккредитации № AAC.7.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
155	Vehicle Parts	Concentricity	0-10mm	SOP-124/B
156	Vehicle Parts	Symmetry	0-500mm	SOP-F125/B
157	Vehicle Parts	Simple Runout	0-10mm	SOP-126/OR
158	Vehicle Parts	Thread	0-50mm	SOP-F131/A
159	Gears	Gear Measurement	Up to 10000 mm	SOP-F150/OR
NVH Lab				
160	Acoustical materials	Sound Absorption Coefficient	Up to 100%	ASTM E1050-12 & ISO 10534-2:1998 & ISIRI 9803-2: 1st. edition & PSA D45 5014(A) & PSA D45 5430(A)
161	Acoustical materials	Sound Transmission Loss	Up to 60dB	ASTM E 2611-09
162	Audible warning devices	Sound Pressure Level	Up to 130dB	ISIRI 6482(1st. edition) 70/388/EEC& UNECE R28
163	Tyre	Sound Pressure Level	Up to 130dB	E/ECE/324 R117/6.1 & UNECE R117
164	Road vehicles	Sound Pressure Level	Up to 130dB	2014/540 /EU & INSO 4243 (2nd revision)
165	Road vehicles	Sound Pressure Level	Up to 130dB	ECE R51

Приложение к аттестату
аккредитации № AAC.7.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
166	Road vehicles	Sound Pressure Level	Up to 130dB	70/157/EEC & 2007/34/EC & ISIRI 4243
167	Automobile parts	Vibrational Endurance	0-100g	JIS D1601 ISIRI 3302 (1371/09/16) Ver 1995
168	Lamps	Vibrational Endurance	0-100g	ISIRI 6004 First Rev 1381 (item no. 6.4)
169	Resilient elements	Dynamic Stiffness	Up to 8kN/mm	ISO 10846-2 & ISIRI 9829-2 1st. edition
170	Shock absorbers	Performance & Endurance	Up to 50kN Up to 1.2m/s	ISIRI 3006 & JASO C 602:2001& IK.STD.NO 5411100006
171	Powertrain adaptation	Fatigue Strength & Endurance	Up to 250kN	B 320730/PSA
172	Powertrain adaptation	Resistance Load	Up to 63kN	B 320731/PSA
Paint Lab				
173	Paint	considering change of color-blistering and adhesion in paint film	Without Change in Color /with Change in Color With blistering/Without blistering For considering blistering(There are 16grade) For considering adhesion(There are 6 grade)	D271327/PSA
174	Paint	considering change of color-blistering and adhesion in paint film	Without Change in Color /with Change in Color With blistering/Without blistering For considering blistering(There are 16grade) For considering adhesion(There are 6 grade)	D271571/PSA
175	Paint	Considering adhesion in paint film	For considering adhesion (There are 6 grade)	D251075/PSA

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
176	Paint	Considering (L, a, b) for Metallic Products	Spectral range : 400-700nm	D155084/PSA
177	Paint	Considering (L, a, b) for Solid Products	Spectral range : 400-700nm	D155084/PSA
178	Paint	Considering Products Heat resistance	Without Change in plate/with Change in plate	D275074/PSA
179	Paint	Considering Stone Impact resistance in paint film	For considering (There are 5 grade)	D241312/PSA
180	Paint	Considering resistance to cracking or peeling during a bending test in paint film	Without Crack in paint/with Crack in paint	D251297/PSA
181	Paint	Measuring the paint film hardness	240-260 s	D251298/PSA
182	Paint	Considering cracking or loss of adhesion when the support is slowly and regularly pressed into a cup shape into paint film	Without Crack in paint/with Crack in paint	D251342/PSA
183	Paint	Measuring the paint film gloss	0-2000UB(in Angle20)	D251413/PSA
184	Paint	Measuring the paint film Thickness	0-400 micron	ISO2178
185	Paint	considering change of color-blistering in paint film	For considering (There are 5 grade)	D271433/PSA
186	Paint	Visual Comparison in light Cabin	Without difference/With difference	D155504/PSA
187	Paint	Considering Impact resistance in paint film	Without Crack in paint/with Crack in paint	D295342/PSA

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
188	Paint	Considering adhesion in paint film	For considering adhesion(There are 6 grade)	D275438/PSA
189	Paint	considering change of gloss in paint film	0-2000UB(in Angle20)	D245359/PSA
190	Paint	considering oxidation-blistering and adhesion in paint film	For considering adhesion(There are 6 grade) For considering oxidation and blistering(There are 10 grade)	D171058/PSA ISIRI2400
Petroleum Lab				
191	Petroleum Product(Oil)	Color	0.5-8.0 ASTM Color	DIN ISO2049:2001, ASTM D1500:2007, ISIRI 203
192	Petroleum Product(Oil)	Flash point	Min79°C & Above	ASTM D92:2012, ISIRI 1175
193	Petroleum Product (Engine Coolant liquids)	Freezing point	-80°C Up to 10°C	ASTM D6660:2007
194	Petroleum Product	Density balance method	Scales which can measure 0 up to 210 g/cm^3	PSA D151163,C
195	Petroleum Product	Dry extract	Depend on percentage of material dry extract	PSA D551209,D
196	Petroleum Product (Engine Coolant liquids/Break Oil))	Boiling Point	Under 100°C up to 190°C	ASTM D1120-2011 /NFR156024, ISIRI1213/D551076/B
197	Petroleum Product (Oil &Wax)	Kinematic viscosity	0 Up to 3000cst	ASTM D445:2011-ISO 3104:1999, ISIRI 340
198	Petroleum Product(Oil)	viscosity index	50 - 200	ASTM D2270:2010, ISIRI 195

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
199	Pour point of petroleum (Oils)	Pour point	-50°C Up to 0°C	ASTM D97:2012, ISIRI 201
200	Petroleum Product (Grease)	Greaser cone penetration	Max620(1/10mm)	ASTM D217:2010
201	Petroleum Product	copper corrosion	grade 1a up to 4c	ASTM D130:2012, ISIRI 366
202	Petroleum Product (Oil)	behavior of in water	Null or gel formation	PSA D575046, B, 1997
203	Liquid (Petroleum Product&…)	Digital Density	0 Up to 3g/cm^3	ASTM D4052:2011, ISIRI 197
204	Adhesive joints tensile strength shearing	Shear strength	stress of breaking in traction-shearing R(MPa) (Tensile with Load cell:5kN)	PSA D411489/B
205	Petroleum product(Adhesive)	Window bonding(Adhesion)	Type or Rupture(RC-RAR-RA-(RC+RA))	PSA D511709/C
206	Petroleum product(Mastics & Adhesive)	Shear strength	shear breaking stress "R"MPa& type of rupture (Tensile with Load cell:5kN)	PSA D411108/G ISO 10365
207	Petroleum product(Mastics)	Water absorption & possibility of corrosion	Percentage of Support Corrosion & Water Absorption in 100g Mastics	PSA D451148/E
208	Petroleum product/ Engine Coolant liquids	Ash content	Depend on percentage of ash of material	PSA D101145/C ASTM D907

Приложение к аттестату
аккредитации № AAC. T. 00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
Polymer and Textile Lab				
209	Plastic , Rubber & Textile Parts	Tensile Property Tension – Elongation - Modules	Load : up to 4.5kN	BS EN ISO 527 ASTM D412 ASTM D638 BS 903-A2 PSA D411050 PSA D411099 Last Edition
210	Plastic & Rubber Parts	Kinds of Shore Kinds of IRHD	Hardness : 10 up to 100 IRHD or Shore	DIN 53505 ASTM D 2240 BS 903-A26 PSA D451291 PSA D451290 Last Edition
211	Plastic , Rubber & Textile Parts	Tear Strength	Load : up to 200kN/m	DIN 53507 ASTM D624 ISO 34 PSA D411573 PSA D411048 PSA D415149 PSA D411126 Last Edition
212	Rubber Parts	Resilience	Resilience : Up to 99%	DIN 53512 Last Edition
213	Rubber & Composite Parts	Compression Property	Up to 2 MPa	PSA D411003 PSA D411541 Last Edition

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
214	Rubber, Textile & Composite Parts	Compression Set	Up to 1 MPa	ASTM D395 BS 903-A6 PSA D451216 PSA D451132 PSA D451046 PSA D451540 Last Edition
215	Plastic , Rubber ,Textile & Composite Parts	Aging	Temp. : up to 250°C	ASTM D471 ASTM D573 BS 903-A16 BS 903 –A19 PSA D471053 PSA D471098 Last Edition
216	Textile , Adhesive & Composite Parts	Peeling	Load : up to 300 N/cm	PSA D111157 PSA D411315 PSA D511485 Last Edition
217	Plastic , Textile & Composite Parts	Punching Resistance	Load : up to 2kN	PSA D411097 Last Edition
218	Adhesive & Composite Parts	Shear Strength	Shear : up to 5 MPa	Peugeot D411108 Last Edition
219	Plastic , Rubber , Textile & Composite Parts	Reaction to Heat	Temp. : -40°C ~ 250°C	PSA D451139 PSA D451234 Last Edition
220	Plastic , Textile & Composite Parts	Thickness & Compressibility	Up to 300 mm	PSA D451195 PSA D451013 Last Edition
221	Plastic , Rubber , Textile & Composite Parts	Behavior to Impact	Temp : 23~ -40°C Weight : 100 ~ 6800 g Height : 25 ~ 125 cm	PSA D421235 Last Edition

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
222	Textile , Plastic & Composite Parts	Elongation Under Light Load	At 20 N	PSA D451124 Last Edition
223	Plastic , Rubber , Textile & Composite Parts	Ash	Up to 1200°C	PSA D101145 Last Edition
224	Plastic , Rubber , Textile & Composite Parts	Burning Behavior	Opened Range	PSA D451333 Last Edition
225	Rubber & Composite Parts	Resistance to Ozone	UP to 200pphm	PSA D471100 Last Edition
226	Plastic Parts	Deflection Temperature of Plastics Flexural Load	Up to 230°C and Load : 0.455 ~ 1.8 MPa	ASTM D648 ASTM D1525 BS EN ISO 75 BS EN ISO 306 Last Edition
227	Composite Parts	Density	10 Up to 650 kg/m^3	PSA D451045 Last Edition
228	Plastic Parts	M.F.I Index	Up to 230°C Load : 1000 g ~ 25000 g	ASTM D1238 BS EN ISO 1133 Last Edition
229	Plastic , Rubber , Textile & Composite Parts	Surface Mass	Up to 20 kg/m	PSA D451012 Last Edition
230	Textile & Composite Parts	Water Absorption	Opened Range	PSA D451429 Last Edition
231	Plastic , Rubber , Textile & Composite Parts	Behavior in Humid Atmosphere	At 40°C	Peugeot D471217 Last Edition
232	Plastic , Rubber , Textile & Composite Parts	Climatic Aging	-30°C ~ 150°C And 0 ~ 95% R.H.	Peugeot D471309 Last Edition
233	Plastic , Rubber , Textile & Composite Parts	Abrasion Resistance	Opened Range	ASTM D3389 PSA D141425 Last Edition

Приложение к аттестату
аккредитации № AAC. T. 00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
234	Rubber Parts	Rigidity Resistance	Up to -65°C	PSA D451528 Last Edition
235	Plastic , Rubber , Textile & Composite Parts	Volatility Additives	Opened Range	PSA D451601 Last Edition
236	Rubber Parts	Constant Tension Deformation	Up to 200°C	PSA D451231 Last Edition
237	Rubber Parts	Aging	Opened Range	PSA D471408 Last Edition
238	Plastic Parts	Resistance to Cracking	Crack or No Crack	PSA D411733 Last Edition
Vehicle and Homologation Lab				
239	Whole Vehicles	Braking devices	Vehicles of category M, N	ISIRI 6742 71/320/EEC Amend 2002/78/EC ------- INSO-UNECE R 13H UNECE R13-H (REV 3) ------- INSO-UNECE R 13 UNECE R13 (REV 8)
240	Whole Vehicles	Steering equipment	Vehicles of category M, N	ISIRI 3917 70/311/EEC Amend 1999/7/EC ------- INSO-UNECE R 79 UNECE R79 (REV2): 2005
241	Whole Vehicles	Speed limiters devices	Vehicles of category M2, M3, N2, N3	INSO 6484 92/24/EEC Amend 2004/11/EC ------- INSO-UNECE R 89 UNECE R 89

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
242	Whole Vehicles	Speedometer equipment	Vehicles of category M, N	ISIRI 6481 75/443/EEC Amend 97/39/EC ------- INSO-UNECE R 39 UNECE R39 (REV1): 2003
243	Whole Vehicles	Ride and Handling	Vehicles of category M1	ISIRI 6487, ISO7401 1988, ISO4138 1996, ISO3888 1975
244	Whole Vehicles	Rear under run protection	Vehicles of category M, N,O	ISIRI 6480 70/221/EEC Amend 2006/20/EC ------- INSO-UNECE R 58 UNECE R58 (REV2): 2008
245	Whole Vehicles	Mounting and the fixing of rear registration plate	Vehicles of category M, N,O	INSO 6491 EU/1003/2010
246	Whole Vehicles	External projections of cabs	Vehicles of category N2, N3	ISIRI 6624 92/114/EEC ------- INSO-UNECE R 61 UNECE R 61
247	Whole Vehicles	Exterior projections	Vehicles of category M1	INSO 6622 UNECE R 26/ 2013
248	Whole Vehicles	Statutory Plate	Vehicles of category M, N,O	INSO 6489 EU/19/2001
249	Whole Vehicles	Spray suppression systems	Vehicles of category N2, N3	INSO 6501 EU/109/2010
250	Whole Vehicles	Masses and dimensions of motor vehicles and trailers	Vehicles of category M2, M3,N, O	ISIRI 6499 97/27/EEC Amend 2001/85/EC ------- INSO-EU 1230 EU/1230/2012
251	Whole Vehicles	Masses and dimensions of motor vehicles of category M1	Vehicles of category M1	ISIRI 6500 92/21/EEC ------- INSO-EU 1230 EU/1230/2012

Приложение к аттестату
аккредитации № AAC.T.00338
От 17. 11. 2017

Item Number	Object of The Test	The Defining Characteristic	Range	Method Tests
252	Whole Vehicles	Mechanical coupling devices	Vehicles of category M, N,O	ISIRI 3478 94/20/EEC ------- INSO-UNECE R 55 UNECE R55 (Rev 2): 2015
253	Whole Vehicles	Towing hooks	Vehicles of category M, N	ISIRI 6490 77/389/EEC 1997 ------- INSO-EU-1005 EU/1005/2010
254	Whole Vehicles	Lateral protection	Vehicles of category N2, N3	ISIRI 6671 89/297/EEC 1995 ------- INSO-UNECE R 73 UNECE R 73 (Rev 1): 2011
255	Whole Vehicles	Buses general structure	Vehicles of category M2, M3	INSO 4160 UNECE R 107/2014
256	Whole Vehicles	Vehicle access and of maneuverability	Vehicles of category M1, N	INSO 21473 EU-130/2012
257	Whole Vehicles	Wheel guards	Vehicles of category M1	INSO-EU-1009 EU/1009/2010
258	Whole Vehicles	Installation of tiers	Vehicles of category M, N,O	INSO-EU-458 EU/458/2011

Iran Test & Research center for Auto parts and Components (ITRAC) Co.