

## Department of Polymer & Petrochemicals - Tests

Laboratory of petroleum Products				
Row	Testing products	standard no.	Test	Related test methods
1	Various types of industrial oils	ISIRI 195 & 340 & ASTM D445	Measuring viscosity and calculating viscosity index from kinematic viscosity at 40 °C and 100 °C	ISIRI 195 & 340 & ASTM D445
2	Various types of base and engine oils	ISIRI 6148	Determination of shear stability of polymer-containing fluids using a diesel injector nozzle	ISIRI 6148
3	Various types of engine oils	ISIRI 5512 & ASTM D5293	Determination of apparent viscosity of engine oils between –5 and –35°C using cold-cranking simulator (CCS)	ISIRI 5512 & ASTM D5293
4	Various types of industrial oils	ISIRI 201	Determination of pour point of petroleum oils	ISIRI 201
5	Various types of industrial oils	ISIRI 198	Determination of flash and fire points by Cleveland open cup tester	ISIRI 198
6	Various types of industrial oils	ASTM D93 - 12	Determination of flash point by Pensky-Martens closed cup tester	ASTM D93 - 12
7	Various types of base and engine oils	ISIRI 2772	Determination of total base number of petroleum products by potentiometric perchloric acid titration	ISIRI 2772
8	Various types of base and engine oils	ISIRI 3281	Analysis of barium, calcium, magnesium, and zinc in unused lubricating oils by atomic absorption spectrometry	ISIRI 3281
9	Various types of base and engine oils		Determination of barium, calcium, magnesium, and zinc in unused lubricating oils by inductively coupled plasma atomic emission spectrometry	
10	Various types of industrial oils	ISIRI 197	Density of Petroleum Products	ISIRI 197
11	Various types of base and engine oils	ISIRI 3780	Determination of evaporation loss of lubricating oils by the Noack method	ISIRI 3780

12	Various types of engine oils	ISIRI 196	Foaming Characteristics of Lubricating Oils	ISIRI 196
13	Various types of engine oils	ISIRI 336	Copper strip corrosion test	ISIRI 336
14	Various types of industrial oils and additives	ISIRI 8402 & ASTM D4294	Determination of sulfur content in petroleum products by energy-dispersive X-ray fluorescence spectrometry	ISIRI 8402 & ASTM D4294
15	Various types of base and engine oils	ISIRI 199	in base oils by Determination of acid number color-indicator titration	ISIRI 199
16	Various types of base and engine oils	ISIRI 203	Determination of the color of petroleum products	ISIRI 203
17	Fuel products	ISIRI 6261 & ASTM D86	Distillation of petroleum products at atmospheric pressure	ISIRI 6261 & ASTM D86
18	Various types of base and engine oils	ASTM D1160-12	Distillation of petroleum products at reduced pressure	ASTM D1160-12
19	Various types of greases	ISIRI 1209	Cone penetration test at 25 °C	ISIRI 1209
20	Various types of greases	ISIRI 1096	Determination of dropping point of lubricating grease	ISIRI 1096
21	Various types of greases	ISIRI 565	Analysis of Petroleum Products	ISIRI 565
<b>Polymer Laboratory</b>				
1	Various types of rubbers	ISIRI 10034	Identification of rubbers by FT-IR	ISIRI 10034

2	plastic and rubber	ISIRI 8391	Identification of polymers	ISIRI 8391
3	plastics	ISIRI 7090-1	Determination of density of plastics - Immersion method	ISIRI 7090-1
4	rubber	ISIRI 1814	Determination of density of rubbers	ISIRI 1814
5	plastics	ISIRI 6980	Determination of melt flow index (MFI)	ISIRI 6980
6	crosslinked plastics	ISIRI 8393	Determination of gel content	ISIRI 8393
7	Polyamide	ISIRI 2212	Determination of melting point	ISIRI 2212
8	rubber	ISIRI 601	Determination of ash	ISIRI 601
9	rubber	ISIRI 9005	Measurement of Dimensions	ISIRI 9005
10	plastics	ISIRI 14669	Determination of melting behaviour by capillary tube method	ISIRI 14669
11	PVC pipes	ISIRI 10609	Dichloromethane resistance at specified temperature (DCMT)	ISIRI 10609
12	plastics	ISIRI 6621	Determination of tensile properties	ISIRI 6621
13	rubber	ISIRI 764	Determination of tensile properties	ISIRI 764
14	plastics	ISIRI 6982 & 2116 & 2414	Determination of vicat softening temperature	ISIRI 6982 & 2116 & 2414

15	Toothbrushes	ISIRI 2063		ISIRI 2063
16	Household rubber gloves	ISIRI 3671		ISIRI 3671
17	PTFE tape	ISIRI 5553		ISIRI 5553
18	Melamine tablewares	ISIRI 612		ISIRI 612
19	plastics	ISIRI 7186	Plastics - Differential scanning calorimetry DSC	ISIRI 7186
20	Melamine	ISIRI 2320	Measurement of formaldehyde	ISIRI 2320
21	Rigid cellular plastics	ISIRI 2315	Determination of water absorption	ISIRI 2315
22	Crosslinked pipes	ISIRI 14983	Estimation the degree of crosslinking	ISIRI 14983
23	Plastics pipes	ISIRI 7671	Determination of longitudinal reversion	ISIRI 7671
24	plastics	ISIRI 911	Determination of water absorption	ISIRI 911
25	plastics	Laboratory methods	Determination of plasticizers	Laboratory methods
26	plastics	ISIRI 10237	Determination of ash	ISIRI 10237
27	Plastics pipes	ISIRI 2412	Measurement of dimensions	ISIRI 2412

Tire Testing Laboratory

1	Passenger car and light truck bias tires	1093-1	Full	1093-1
2	Passenger car and light truck radial tires	1093-2	Full	1093-2
3	Bus, truck and trailer bias tires	2169-1	Full	2169-1
4	Bus, truck and trailer radial tires	2169-2	Full	2169-2
5	Retreaded passenger car and light truck bias and radial tires	1643	Full	1643
6	Retreaded bus, truck and trailer radial tires	9135	Full	9135
7	Pneumatic tire for motorcycle	763	Full	763
8	Inner tubes for motorcycle tires	762	Full	762
9	Tires for light loading vehicles	767	Full	767
10	Tire tubes for light loading vehicles	766	Full	766
11	Inner tube for pneumatic tires	2416	Full	2416
12	Various types of agricultural tires	5347-5348-5349-5350-5351	Appearance, Dimension, Labeling	5347-5348-5349-5350-5351

Laboratory of Liquid fuel

<b>1</b>	Gasoline	ISIRI 4904	Measuring the octane number of gasoline	ISIRI 4904
<b>2</b>	Gasoline	ISIRI 4904	Measurement of gasoline hydrocarbon compounds by gas chromatography	ISIRI 4904
<b>3</b>	Gasoline	ISIRI 4904	Measurement of Oxygenated Compounds of Gasoline by Gas Chromatography	ISIRI 4904
<b>4</b>	Gasoline	ISIRI 4904	Measuring the Oxidation Stability of Gasoline	ISIRI 4904
<b>5</b>	Gasoline	ISIRI 4904	Measurement of Gasoline vapor pressure	ISIRI 4904