

Tests marked \* are ISO17025 accredited

TEST NAME	METHOD
Density — Oscillating U-tube method *	IP 365
Distillation characteristics of petroleum products - Micro distillation method	IP 596
Mercaptans, hydrogen sulphide, elemental sulphur and peroxides - Doctor test method	IP 30
Electrical conductivity of aviation and distillate fuels	IP 274
Corrosiveness to copper - Copper strip test	IP 154
Hydrocarbon types in petroleum products - Fluorescent indicator adsorption method	IP 156
Thiol (mercaptan) sulphur in light and middle distillate fuels - Potentiometric method	IP 342
Sulphur in petroleum and petroleum products by energy dispersive x-ray fluorescence (EDXRF) spectrometry	ASTM D4294
Filter blocking tendency	IP 387
Distillation characteristics at atmospheric pressure	IP 123
Transparent and opaque liquids - Kinematic viscosity and calculation of dynamic viscosity	IP 71
Flash point - Abel closed-cup method	IP 170
Flash Point - Pensky Martens closed cup method	IP 34
Sulphur content of automotive fuels — Ultraviolet fluorescence method	IP 490
Total sulphur in light hydrocarbons, spark ignition engine fuel, diesel engine fuel, and engine oil by ultraviolet (UV) fluorescence	ASTM D5453
Free water and particulate contamination in distillate fuels and Haze rating - Visual inspection procedures	ASTM D4176 Procedure 1
Water content of Petroleum Product - Dean & Stark distillation method *	IP 74
Freezing point of aviation fuels - Automatic laser method	IP 529
Saybolt colour of petroleum products - Saybolt chromometer method	ASTM D156
Fatty acid methyl esters (FAME), derived from bio-diesel fuel, in aviation turbine fuel: GC- MS with selective ion monitoring/scan detection method	IP 585
Water separation characteristics of aviation turbine fuels by portable separometer	ASTM D3948
Naphthalene hydrocarbons in aviation turbine fuels by ultraviolet spectrophotometry	ASTM D1840
Antioxidant (AO32) content of aviation turbine fuel by high performance liquid chromatography (HPLC)	IP 343
Static dissipater additives (SDA) in aviation turbine fuel by high performance liquid chromatography (HPLC)	IP 568
Analysis of ethylene product by gas chromatography (GC)	ASTM D2505
Existent gum content of aviation turbine fuel - Jet evaporation method	IP 540

Smoke point of kerosene, manual and automated method	IP 598
Acid number of aviation turbine fuels - Colour indicator titration	IP 354
Particulate contaminant in aviation turbine fuels by laboratory filtration	IP 423
Thermal oxidation stability of gas turbine fuels (JFTOT)	IP 323
Level of cleanliness of aviation turbine fuel - Portable automatic particle counter method	IP 565
Microbiological analysis in fuels, lubricant and water samples	IP 613
Kerosene burning characteristics - 24 hour method	IP 10
Smoke point of kerosene	IP 57
Coumarin in kerosene by high performance liquid chromatography (HPLC)	IP 374 method B
Motor octane number of spark ignition engine fuel (MON)	IP 236
Research octane number of spark ignition engine fuel (RON)	IP 237
Oxidation stability of gasoline - Induction period method	IP 40
Vapour pressure - Part 1: Determination of air saturated vapour pressure (ASVP) and calculated dry vapour pressure equivalent (DVPE)	IP 394
Hydrocarbon types and oxygenates in automotive motor gasoline - Multidimensional GC method	IP 566
PIONA / PNA / nPIPNA / OPNA / PONA / PHONA analysis by Reformulyzer GC	IP 566
Composition of LPG and propylene concentrates - Gas chromatography method	IP 264
Corrosiveness of silver from petroleum products by silver strip test	IP 611
Gum content of light and middle distillate fuels - Jet evaporation method	IP 131
Diesel and domestic heating fuels - Determination of cold filter plugging point (CFPP)	IP 309
Cloud point of petroleum products - Automatic stepped cooling method	IP 444
Petroleum products - Determination of cloud point (manual method)	IP 219
Petroleum products - Determination of pour point	IP 15
Fatty acid methyl ester (FAME) content in middle distillates - Infrared (IR) spectrometry method	IP 579
Contamination in middle distillates	IP 440
Diesel fuel - Assessment of lubricity using the high-frequency reciprocating rig (HFRR)	IP 450
Analysis of ethanol as a blending component for petrol by gas chromatography GC	IP 571

Derived cetane number (DCN) of diesel fuel oils - Ignition delay and combustion delay using a constant volume combustion chamber method (CID)	ASTM D7668
Calculation of cetane index of middle-distillate fuels by the four-variable equation	IP 380
Oxidation stability of middle-distillate fuels	IP 388
Acid or base number - Colour-indicator titration method	IP 139
Weak and strong acid number - Potentiometric titration method	IP 177
Crude petroleum - Determination of water content - Coulometric Karl Fischer titration method	IP 386
Petroleum products - Determination of water - Coulometric Karl Fischer titration method	IP 438
Ethanol as a blending component for petrol - Determination of water content - Karl Fischer coulometric titration method	IP 539
Aromatic hydrocarbon types in middle distillates - HPLC method with refractive index detection (suitable for streams which contain FAME)	IP 391
Commercial propane and butane - Analysis by gas chromatography (GC)*	BS EN 27941-1994 (Modified)
ASTM colour of petroleum products	ASTM D1500
Fatty acid methyl esters (FAME) fuel and blends with diesel fuel - Determination of oxidation stability by accelerated oxidation method (Rancimat)	IP 574
Determination of ash *	IP 4
Carbon residue - Micro method (MCRT)	IP 398
Determination of residue of hydrocarbon liquids on evaporation by water bath	BS 4524
Sulphur content - Energy-dispersive x-ray fluorescence (EDXRF) spectrometry *	IP 336
Aluminium, silicon, vanadium, nickel, iron, sodium, calcium, zinc and phosphorous in residual fuel oil by ashing, fusion and ICP-OES	IP 501
Total sediment in residual fuel oils - Part 1: Determination by hot filtration	IP 375
Total sediment in residual fuel oils - Part 2: Determination using standard procedures for ageing	IP 390 (A)
Crude petroleum and fuel oils: Determination of sediment (extraction method)	IP 53
Asphaltenes (heptane insolubles) in crude petroleum and petroleum products	IP 143
Hydrogen sulphide in fuel oils - Rapid liquid phase extraction method	IP 570
Carbon content of petroleum products and lubricants *	ASTM D5291
Sulphur compounds in liquefied petroleum gases (LPG), gases and liquids by gas chromatography with pulsed flame photometric detector (GC PFPD)	Lab in-house method

TEST NAME	METHOD
Cold Filter Blocking Tendency	IP 618
Total salts content of crude oil - conductivity method	IP 265
Organically bound trace nitrogen - Oxidative combustion and chemiluminescence method	IP 379
Composition of fuel gas streams by Hi-speed refinery gas analyser [RGA]*	Lab in-house method
Analysis by Hi-speed refinery gas analyser [RGA)	Lab in-house method
Boiling range distribution of petroleum fractions by gas chromatography [SIMDIS)	ASTM D2887
Hydrogen sulphide [H <sub>2</sub> S) in commercial butane and propane [Stain test)	BS 4250 [Annex C)
Residues in liquefied petroleum gases [LPG)	ASTM D2158
Colour of clear liquids: Platinum-Cobalt scale	ASTM D1209
Determination of Quinizarin in Gas Oil - Spectrophotometric Method	IP 298
Trace fixed gases by gas chromatography with helium ionisation detector [GC HID)	Lab in-house method
Analysis of natural gas streams *	ASTM D1945-19 [modified)
Water Analysis - pH	In-House Method LM-Water-29
Water Analysis - Total Suspended Solids	In-House Method LM-HSE-10
Effluent Analysis - pH*	Documented In-House Method LM-Water-29 to BS EN 10523:2012
Effluent Analysis - Total Suspended Solids*	Documented In-House Method LM-HSE-10 to BS EN 872:2005
Effluent Analysis - Chemical Oxygen Demand*	Documented In-House Method LM-HSE-28
Effluent Analysis - Oil in Water*	Documented In-House Method LM-HSE-26