

POLYMER LABORATORY

TESTING SURAKSHA HOSE, SAFETY CAPS , CONSUMABLES



NABL ACCREDITED

NABL CERTIFIED LAB FOR CARRYING OUT TESTING OF LPG EQUIPMENTS LIKE SURAKSHA HOSE, SAFETY CAPS, PVC SEALS AND RUBBER COMPOUND AS PER THE OIL INDUSTRY REQUIREMENT.

The major tests carried out in the lab are

- Testing of LPG SURAKSHA HOSE as per IS 9573:2012
- Testing of PVC and RPVC seal as per ASTM D:2732 and Oil Industry specification
- Testing of SAFETY CAPS as per ASTM E:1252 and Oil Industry specification
- Testing of O-RINGS as per ISO 4650:2012, ASTM E:1252 and Oil Industry specification
- Testing of RUBBER COMPOUNDS as per ASTM D395, ASTM D1415, ASTM D 412



FOURIER TRANSFORM INFRARED SPECTROMETER

For carrying out qualitative analysis for ascertaining the material of Suraksha LPG Hose , PVC Seal, Safety Cap and O-Rings

- Peak of material obtained is matched with the reference peak to ascertain material.

OZONE RESISTANCE TEST

Confirms the prevention of premature degradation in atmospheric conditions of Suraksha LPG Hose

- Sample is kept in Ozone Chamber with 50 ± 5 pphm Zone concentration at $40 \pm 2^\circ\text{C}$ for 72 ± 2 hrs.
- Samples are then examined under 2X magnification for any signs of cracking .



LERC

LPG EQUIPMENT RESEARCH CENTRE



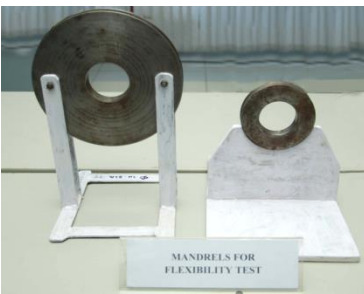
Test is carried out on vulcanized rubber sheet to determine the Tensile Strength and the % Elongation.

Prior to testing samples are conditioned in the Humidity Chamber.

HUMIDITY CHAMBER



COMPUTERIZED TENSILE TESTING MACHINE



FLEXIBILITY TEST OF THE HOSE

- Assesses the flexibility of the LPG Hose.
- The hose is conditioned prior to the test and then it is bent around the mandrel.
- Hose is visually examined to check for any cracks or breaks.

Other Test Facilities include

- Grip Strength for LPG Hose to ascertain ease of insertion and removal from LPG Stove.
- Proof Pressure Test and Burst Pressure Test to assess the capability of the hose to withstand the pressure.
- Dimension metrology of LPG Hose, Safety Caps, O-Rings and PVC Seals.
- N-Pentane test on LPG Hose and O-Rings to assess the behaviour of material when exposed to an atmosphere of LPG.
- Pressure Test of the Safety Caps .
- Ash Content analysis of the PVC Seals
- Visual Inspection of O-Rings, Safety Caps and PVC Seals for any visible signs of damage.



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