

Department : **Mechanical**

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Guided By

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Project Title

LPG GAS REFRIGERATOR

Abstract:

This work investigates the result of an experimental study carried out to determine the performance of domestic refrigerator when a propane-butane mixture is liquefied petroleum gas (LPG) which is locally available and comprises 24.4% propane, 56.4% butane and 17.2% isobutene which is very from company to company. The LPG is cheaper and possesses an environmental friendly nature with no ozone depletion potential (ODP). It is used in world for cooking purposes. The various methods of refrigeration on the basis of standard refrigerant discussed. He refrigerator used in the present study is of medium size with a gross capacity of 125 litre and is designed to work on LPG. The performance parameters investigated is the refrigeration effect in certain time. The refrigerator worked efficiently when LPG was used as refrigerant instead of CFC 12. The evaporator temperature reached -5°C with and an ambient temperature of 12°C . Also from the experiment which done in atmospheric condition, we can predict the optimum value of cooling effect with the suitable operating condition of regulating valve and capillary tube of the system. The results of the present work indicate the successful use of this propane-butane mixture as an alternative refrigerant to CFC 12 in domestic refrigerator.

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