

# Tamper Evident Seal

## FOR LPG CYLINDERS

Patent Pending

### ADVANCED MATERIAL

Made of an entirely new and proprietary PVC formulation (patent pending) without any performance degrading elements to improve the shrinking and grip of the seal on the LPG Cylinder Valve

### STATE-OF-THE-ART MANUFACTURING PROCESS

Advanced Double Bubble PVC film manufacturing process improving the thermosetting properties of the seal

### BETTER FRACTURABILITY

Lower tear strength, reduced film thickness & application of fracture mechanics principles for the new perforation design to cause irreparable damage to the seal when removed even after heating

### IMPROVED FORM FACTOR

Increase in the length of seal improves its grip onto the LPG cylinder valve thereby making its removal without damage further difficult

### ANTI-COUNTERFEITING FEATURES

Seal also incorporates anti-counterfeiting attributes like multi-security hologram strip and several other features to prevent duplication



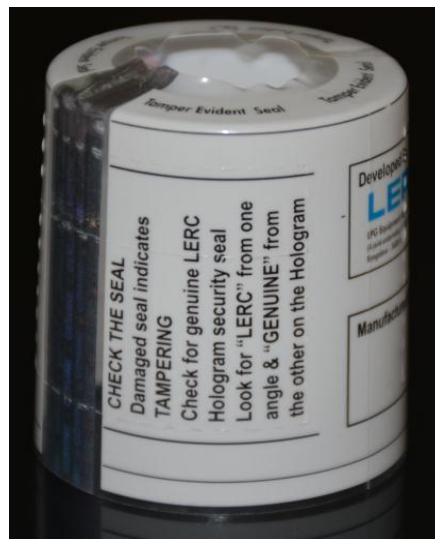
## A Revolutionary Product To Meet The Most Challenging Sealing Application

LERC has developed a truly Tamper Evident Seal for LPG Cylinders as required by the three Public Sector Oil Companies (IndianOil Corp., Bharat Petroleum Corp. and Hindustan Petroleum Corp.) for pilfer-proofing the

subsidized domestic LPG cylinders marketed by them in the country.

By analysing and identifying the defects & deficiencies in the existing seal through material testing and performance studies, the new seal was developed through parametric modifications and improvements – most crucially in the seal material, form factor and the fracture behaviour when the seal is removed.

The new seal developed by LERC is fully tamper evident and cannot be reused after its removal. The new seal also have several security features to prevent counterfeiting including a hot stamped multi-security hologram strip.



**LERC**

LPG EQUIPMENT RESEARCH CENTRE