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# **Technical Bulletin**

**Cooker Hoses and Flexible Connections** 

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#### **BACKGROUND:**

#### Deterioration of LPG flexible connectors

Recently there have been a number of instances reported to RGII of LPG flexible connectors showing evidence of cracking of the outer rubber cover of some LPG cooker flexible connections. In some instances gas escapes have been identified in association with the deterioration of the outer covering, or end connections of these hoses.

Registered Gas Installers (RGI) should already be well aware of the need to check and inspect all flexible hose connections for deterioration, cracking or other damage. This is especially relevant to hoses used throughout the LPG sector. For example, from time-to-time RGIs may encounter damaged domestic flexible connections. Typical damage on BS 699-1(see Note 1) flexible connections can include kinks and bulges, which would indicate that the inner metallic wound spiral has become damaged. Such damage will most likely affect the integrity of the flexible connection. More recently, instances of cracking of the outer synthetic rubber cover of Liquefied Petroleum Gas (LPG) cooker flexible connections have been identified. It is believed that this damage is caused by ozone attack of the rubber cover over a period of time. The factors involved are complex, but is considered that reduced resistance to ozone attack may be due to additives added to the rubber compound during original processing.

**Note 1:** LPG cooker hoses are produced following the guidelines of a draft British Standard. Flexible connectors with a black synthetic rubber cover that are suitable for LPG can normally be identified by a red band, usually running the length of the flexible connection. In addition, there is a form of words stating that the flexible connector is suitable for use with LPG somewhere around the circumference of the connector. Although flexible connectors for use with LPG are considered appropriate for use with natural gas, those designed for use with natural gas are <u>not</u> suitable for LPG.

### SAFETY ACTIONS:

In all instances where there are signs of damage, hardening of the outer rubber or where signs of cracking is identified the flexible connection must be replaced immediately with a connection conforming to EN14800

It's important to check flexible connectors held in stock for signs of damage, hardening of the outer rubber or cracking and return them to supplier where appropriate.



BS 669-1: 1989- Flexible hoses, end fittings and sockets for gas burning appliances. Specification for stripwound metallic flexible hoses, covers, end fittings and sockets for domestic appliances burning  $1^{st}$  and  $2^{nd}$  family gases.

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