

PTFE Tape and Oxygen Service

In the past there has been some confusion over the use of PTFE tape on equipment used in oxygen service. The subject is quite a complex one but it is hoped that this explanation will clarify the issue.

PTFE tape is used in a variety of applications for sealing gas and liquid pipework and is available in various grades, differing in purity, thickness and width. Some grades of tape contain a large proportion of a material other than PTFE and may be lubricated with hydrocarbon based oils and greases. If these grades of tape come into contact with high pressure oxygen there is a chance that an ignition will occur with the risk of injury to the operator and damage to the equipment.

Pure PTFE tape can be and is, used for sealing components in oxygen service provided it is lubricant-free. Even then it should be applied with care by experienced personnel to ensure that loose strands are not exposed to high velocity gas streams. Thus oxygen cylinders and regulators prepared by or for BOC do have PTFE tape on them but only for certain applications and used only in accordance with strictly controlled procedures.

In particular, the practice of using PTFE tape to form a seal between the oxygen cylinder valve outlet and regulator can be especially high risk. If you experience difficulty in producing an effective seal without the use of PTFE tape, the surfaces of the valve outlet and regulator bullnose should be examined for damage and then refer any problems to the supply branch or Gas & Gear store.

If you have any questions or concerns, you should contact BOC on 0800 111 333.

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