

# Drymec

## EN 12021 compliance testing

Contamination in compressed air used for breathing is a serious health risk.

The quality of compressed air used in breathing apparatus is specified in the European Standard EN12021:1999 'Respiratory protective devices - Compressed air for breathing apparatus.'

It is vital that the quality of compressed air used in respiratory applications is in accordance with the required standards to prevent risk to human health and corporate reputation.

Compressed air for breathing apparatus shall not contain any contaminants at a concentration which can cause toxic or harmful effects. In any event all contaminants shall be kept to as low a level as possible and shall be far below the national exposure limit.

Air up to 40 bar for compressed airline breathing apparatus should have a pressure dew point sufficiently low to prevent condensation and freezing. Where the apparatus is used and stored at a known temperature, the pressure dew point should be at least 5°C below the likely lowest temperature. Where the conditions of usage and storage of the compressed air supply are not known, the pressure dew point should not exceed -11°C.

The requirements detailed in the Standard are summarised as follows:

Parameter	Requirement
Oxygen	21% ± 1 %
Lubricant – droplet or mist	< 0.5 mg/m <sup>3</sup>
Odour and taste	No significant amount
Carbon dioxide	< 500 ml/m <sup>3</sup>
Carbon monoxide	< 15 ml/m <sup>3</sup>
Pressure dewpoint	11° C

The only way to check that your air supply is fit for breathing is by regular testing.

The volume flow and the quality of the compressed breathing air supply should be tested at least every 3 months or whenever a mobile compressor is moved as the intake air is now being drawn in from a new location.

A detailed air quality test record sheet should be completed and reviewed by a responsible person to assess whether the air quality is fit for purpose.

The air quality test report should be reviewed in combination with the compressor and air purifier service and maintenance records to provide a complete assessment of the breathing air installation.

Any defects in the equipment or test results should be noted and the equipment should be suitably labelled to record test status. Any defects should be remedied before the equipment is used again and a further air test carried out to ensure that the breathing air supplied is now safe.

All test records should be retained like other business records for at least 5 years.

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