

1 Documents and Test Samples

The following documents and samples were submitted to BAM:

- 1 Test Application
- 1 Safety Data Sheet
- 1 Material Data Sheet
- 50 ml Loxeal AN 83-21
Green translucent anaerobic adhesive

2 Test Methods

To evaluate the compatibility of the nonmetallic material for use in piping, valves and fittings or other components for gaseous oxygen service at temperatures up to 60 °C its ignition sensitivity to gaseous oxygen impacts was tested at 60 °C.

The nonmetallic material LOXEAL 83-21 has been tested in liquid and in cured condition.

3 Results

3.1 Ignition Sensitivity to Gaseous Oxygen Impacts

The test method is described in annex 1.

3.1.1 Liquid Material

Results:

Sample Temperature t_a [°C]	Initial Oxygen Pressure p_i [bar]	Final Oxygen Pressure p_F [bar]	Reaction on Impact
60	1	20	no reaction*
60	1	25	ignition on 2. impact
60	1	20	no reaction*

* within a series of five consecutive impacts

In two separate tests, each consisting of a series of five consecutive impacts, no reactions of the material with oxygen could be observed at a final oxygen pressure p_F of 20 bar and at a temperature of 60 °C.