



Colex International Limited

Pneumatic Tube Technical Data

Burst Characteristics vs Working Temperatures

This graph provides a guide to the relationship between pressure capabilities of the Colex flexible nylon tube, when working within a recommended working temperature range.

As the temperature falls, the tube will become less flexible, the brittle point temperature being -70°C .

Extreme caution should be taken if the temperature is exceeded. Any increase in temperature above 20°C will result in a decrease in the short term burst pressure.

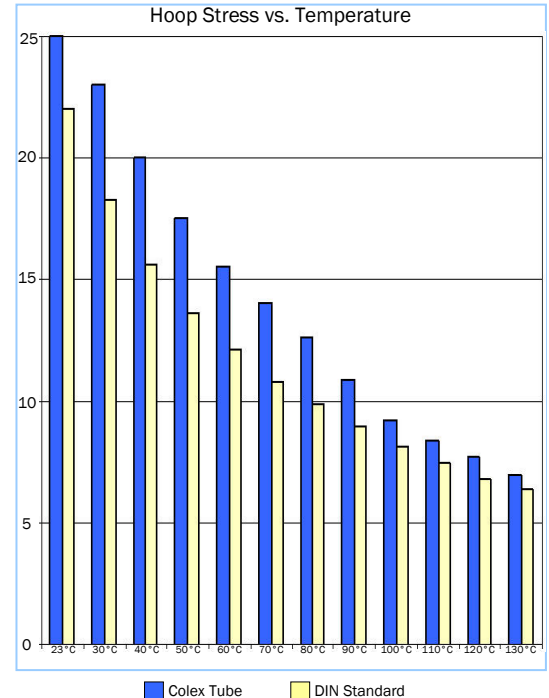
Short term burst pressure is defined as the value recorded when testing a tube to burst pressure, as described in **BS EN ISO 1402**.

Examples

Burst pressure of NFM6/4 at 23°C = 1450 psi = 100%

Burst Pressure of NFM6/4 at 40°C = 80% of 1450 psi = 1160 psi

Burst Pressure of NFM6/4 at 100°C = 37% of 1450 psi = 535 psi



Safety Factors

When selecting a hose for an application it is vital that an adequate safety factor is taken into account.

We recommend a working pressure with 4:1 safety factor on short term burst pressures given in the tables for all gasses and chemicals. For water a 3:1 safety factor may be used.

Below is an extract from ISO 7751 : 1997 which will assist an installer in providing a proven level of safety.

<u>Type of Service</u> (for guidance only)	<u>(Ratio of minimum BP to Design WP)</u>
Water hose, max WP 10 bar	3.0
Hose for all other liquids, solid materials suspended in liquids or air and water hose, WP over 10 bar	4.0
Hose for compressed air and other gases	4.0
Hose for liquid media that change into a gaseous state when subjected to a reduction in pressure, i.e. released to atmosphere	5.0
Steam hose	10.0
Jetting hose	2.5

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IMPORTANT NOTE: Whilst every effort is made to ensure that the above information is accurate and correct, the conditions under which Colex products are used are beyond our control and therefore recommendations are made without warranty or guarantee. Colex reserve the right to change specifications without prior notice.