

## Technical Specification - LLDPE Tubing

October 2004

**NOTE:** This specification refers to LLDPE tubing prefixed PE. Other fittings, valves, tube and ancillary products have their own Technical Specification.

### ***Product Selection and Installation***

John Guest fittings and related products are specifically designed and manufactured by John Guest to the Technical Specification set out in the John Guest Product Catalogues. All John Guest fittings and related products should be selected, installed, used and maintained in accordance with these Technical Specifications. It is the customer's/user's responsibility to ensure that John Guest fittings and related products are suitable for their intended applications, are properly installed and maintained and are used in accordance with the Technical Specifications. It is also the customer's/user's responsibility to provide its own customers with all relevant technical information about John Guest products it supplies them. If you have any questions about our technical specifications, please contact us.

For use with chemicals or other potentially aggressive liquids, please refer to our Customer Services Department.

**Super Speedfit** fittings and related products are not recommended for use with explosive gases, petroleum spirits, and other fuels or for central heating systems.

### ***Working Temperatures and Pressures - LLDPE***

<b><i>Tube OD</i></b>		<b><i>Tube ID</i></b>	<b><i>Tube OD</i></b>		<b><i>Tube ID</i></b>
1/4"	x	0.170"	1/2"	x	0.375"
5/16"	x	0.187"	8mm	x	6mm
3/8"	x	0.25"	10mm	x	7mm
4mm	x	2.5mm	12mm	x	9mm
6mm	x	4mm	15mm	x	11.5mm
<b>230 psi @ 70°F</b> 15 bar @ 20°C			<b>150 psi @ 70°F</b> 10 bar @ 20°C		
<b>120 psi @ 150°F</b> 8 bar @ 65°C			<b>90 psi @ 150°F</b> 6 bar @ 65°C		

**1 Bar = 14.5 psi (approx.)**

Maximum Working Temperature 150°F at pressures shown in the chart above. For temperatures above 150°F customers should refer to our Technical Help Desk.

Please note maximum pressure rating for a 'system' depends on the lowest rated component, e.g. most John Guest fittings have a different rating than the tube ratings shown above.

**Burst pressures** are approximately 3 times the maximum working pressure.

LLDPE is not recommended for mineral oils, gases and fuels or high pressure compressed air / pneumatic systems.

#### *Tube Tolerances*

<b>¼" to ½"</b>	+0.001/-0.004"
<b>4mm to 6mm</b>	+0.05/-0.07mm
<b>8mm to 12mm</b>	+0.05/-0.10mm
<b>15mm</b>	+0.10/-0.10mm

#### *Food Quality*

All these fittings are produced in Food and Drug Administration (FDA) approved materials and are therefore recommended for food quality applications.



#### *Chemical Resistance*

For use of with chemicals or potentially aggressive liquids, please refer to our Technical Service Department.

**NOTE:** When using cleaning agents or other potentially aggressive liquids, please ensure compatibility with tubing and fittings.

#### *Tube Inserts*

If the tube is used in a warm water system a tube insert is necessary.



Part No.	TSM10N	10mm size
Part No.	TSM1209S	12mm size
Part No.	TSM15N	15mm size

Please note maximum pressure rating for a 'system' depends on the lowest rated component, e.g. most John Guest fittings have a different rating than the tube ratings shown above.

### ***Pneumatics Applications***

John Guest LLDPE tube is suitable for pneumatic applications providing pressure is maximum 10 bar @ 20°C (150psi @ 70°F). At elevated temperatures (50°C+) mineral oil will degrade LLDPE tube and, therefore, LLDPE tube used in pneumatic circuits should be periodically checked and replaced if necessary.

**Burst pressures** are approximately 3 times the maximum working pressure.

### ***Warranty***

Whilst we give a warranty against defects in manufacture or materials, it is the responsibility of the specifier to ensure that fittings and related products are suitable for their application. The installation must be carried out correctly in accordance with our recommendations, complying with recognised codes of practice and relevant national standards, and be properly maintained. Please refer to our terms and conditions of sale.

The company has a policy of continuous research and development and reserves the right to amend without notice the specification and design of all products. John Guest reserve the right to change the colour and shape of products. Photographs are for illustration purposes only.