

# LLDPE Tubing



The John Guest PE Range of plastic tubing is produced in Linear Low Density Polyethylene for cold and intermittent hot water applications.

Our tubing is made from FDA approved materials and is NSF International certified.

Our tubing provides the benefits of a wide range of temperature and pressure suitability, broad chemical compatibility and is made from non contaminating materials. Common applications being water purification, water conditioners, ice makers and misting systems. LLDPE is more robust than traditional low or medium density polyethylene and is recommended for use with cold and intermittent hot water.

John Guest Polyethylene tubing is designed for use with John Guest Super Speedfit push-fit fittings, John Guest Shut-Off Valves and virtually all standard tubing connectors.

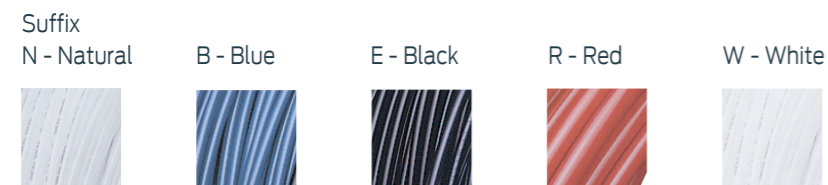
## Sizes available

PART NO.	OD	ID LENGTH	COIL RADII	MINI BEND	TUBE COLOUR SUFFIX
PE-08-BI-0500F-	1/4"(0.250")	0.170"	500 FT	1.00"	<b>N B R E W G Y O * *</b>
PE-08-BI-1000F-	1/4"(0.250")	0.170"	1000 FT	1.00"	<b>N B R E W - Y O * *</b>
PE-10-CI-0500F-	5/16"(0.312")	0.187"	500 FT	1.13"	<b>N B R E W G Y O * *</b>
PE-12-EI-0500F-	3/8"(0.375")	0.250"	500 FT	1.25"	<b>N B R E W G Y O *</b>
PE-16-GI-0250F-	1/2"(0.500")	0.375"	250 FT	2.50"	<b>N B R E W G Y O *</b>
PE-04025-0100M-	4mm	2.5mm	100m	25mm	<b>N B R E W G Y O * *</b>
PE-0604-0100M-	6mm	4mm	100m	25mm	<b>N B R E W G Y O * *</b>
PE-0806-0100M-	8mm	6mm	100m	30mm	<b>N B R E W G Y O * *</b>
PE-1007-100M-	10mm	7mm	100m	32mm	<b>N B R E W G Y O *</b>
PE-1209-100M-	12mm	9mm	100m	63mm	<b>N B R E W G Y O *</b>
PE-15115-0100M-	15mm	11.5mm	100m	100mm	<b>- B R E - G - -</b>

The suffix letter denotes tube colour as shown below ie PE-08-BI-0500F-N (denotes natural). Colour suffix in black text are generally in stock and available in minimum order quantities of 2 coils. Suffix in red text are non standard and are subject to minimum order quantities unless in stock and will incur a longer lead-time.

- \* denotes products shown in blue have a minimum order quantity of 50 coils.
- \*\* denotes products which are shown in blue have a minimum order quantity of 100 coils.

## Standard colours available



15mm size only available in Blue, Red, Black and Green.  
8mm size only available in Natural, Blue, Black, Red and White.  
For other colours we suggest you use 5/16".  
Black tubing is UV stabilized.

## Tube tolerances

1/4" - 1/2"	+0.001/-0.004"
4mm	+0.05/-0.07mm
6mm - 12mm	+0.05/-0.10mm
15mm	+0.10/-0.10mm

## Working temperatures and pressures - LLDPE

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

1 Bar = 14.5 psi (approx.)

Maximum Working Temperature 150°F at pressures shown in chart above.

For temperatures above 150°F customers should refer to our Technical Help Desk.

The above maximum temperatures and pressures do not take chlorine content into account. This could reduce service life.

Please note maximum pressure rating for a 'system' depends on the lowest rated component, eg. most John Guest fittings have a different rating from the tube ratings shown above. Burst Pressures are approximately 3 times the maximum working pressure.

## 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.

## Tube inserts

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

## Exposure to ultraviolet light

Only black tube should be installed in areas exposed to any light if biofilm growth is considered an issue. In this case other colours must be protected from exposure to light. Black tube is also UV stabilised and can be installed where exposed to direct sunlight (UV).

## Chemical resistance

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

## Potable water applications

John Guest LLDPE tubing is suitable for potable cold water applications with a maximum chlorine content of 4 parts per million (4 ppm). Heating water above 70°F (20°C) and or pressures above the maximum will significantly reduce service life. Direct exposure to sunlight will also significantly reduce its useful service. As part of good practice tubing should be inspected regularly. If there is any evidence of damage, hardening or cracking it should be replaced immediately.

