YUANNAI TUBE

Polyethylene (PE) Industrial Tubing

Technical Data Sheet | English translation

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Manufacturer: Hefei Yuannai Pneumatic Equipment Co., Ltd.

Source quality commitment: 20 years of focus | 100% virgin material | No regrind

1. Product overview and material characteristics

Extruded from selected, high-quality, 100% virgin polyethylene, with no recycled or reprocessed material added. Recommended for general industrial transfer, auxiliary equipment lines and validated low-pressure pneumatic connections.

• Suitable media: ambient-temperature water and compressed air.

• Application positioning: general auxiliary equipment routing, low-pressure liquid transfer and fixed connections.

• Appearance: natural milky white and coloured products; the approved sample governs.

• Fittings: use fittings suitable for the PE tubing outside diameter, wall thickness and hardness.

• Environmental documentation: RoHS and REACH conformity is subject to valid declarations or test reports for the actual resin, colour masterbatch and finished product.

• Special uses: food contact, drinking water, medical use, breathing gases, fuel gas and high-pressure service are not default commitments for this standard product.

2. Physical and mechanical properties

Test item	Reference value
Density	Approx. 0.920 g/cm³
Melt mass-flow rate (MFR)	Approx. 2.0 g/10 min
Tensile stress at yield	Approx. 10 MPa
Tensile stress at break	Approx. 16 MPa
Elongation at break	Approx. 750%
Air-service temperature range	-10°C to +50°C
Water-service temperature range	0°C to +55°C; freezing is not permitted

3. Dimensions and pressure parameters at 23°C

Metric sizes. OD = outside diameter; ID = inside diameter; WP = working pressure; BP = burst pressure.

Model	OD	ID	Tolerance	WP	BP	Bend radius	Roll length
YN-PE 0425	4.0 mm	2.5 mm	±0.10 mm	6 bar (87 psi)	18 bar (261 psi)	20 mm	200 m
YN-PE 0640	6.0 mm	4.0 mm	±0.10 mm	6 bar (87 psi)	18 bar (261 psi)	30 mm	200 m
YN-PE 0850	8.0 mm	5.0 mm	±0.10 mm	7 bar (113 psi)	15 bar (227 psi)	40 mm	100 m
YN-PE 0855	8.0 mm	5.5 mm	±0.10 mm	5 bar (73 psi)	15 bar (218 psi)	45 mm	100 m
YN-PE 0860	8.0 mm	6.0 mm	±0.10 mm	6 bar (99 psi)	17 bar (256 psi)	50 mm	100 m
YN-PE 1065	10.0 mm	6.5 mm	±0.10 mm	6 bar (87 psi)	18 bar (261 psi)	50 mm	100 m
YN-PE 1080	10.0 mm	8.0 mm	±0.10 mm	4 bar (71 psi)	14 bar (213 psi)	75 mm	100 m
YN-PE 1280	12.0 mm	8.0 mm	±0.10 mm	5 bar (85 psi)	13 bar (199 psi)	60 mm	100 m
YN-PE 1410	14.0 mm	10.0 mm	±0.10 mm	5 bar (73 psi)	15 bar (218 psi)	80 mm	100 m
YN-PE 1612	16.0 mm	12.0 mm	±0.10 mm	3 bar (56 psi)	11 bar (170 psi)	110 mm	100 m

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3. Dimensions and pressure parameters - continued

Fractional / inch sizes. Dimensions and units below are reproduced from the source.

Nominal size	OD	ID	Tolerance	WP	BP	Bend radius	Roll length
1/8″	3.175 mm	1.58 mm	±0.10 mm	8 bar (116 psi)	24 bar (348 psi)	16 mm	200 m
1/4″	6.35 mm	4.35 mm	±0.10 mm	5 bar (73 psi)	15 bar (218 psi)	35 mm	200 m
3/8″	9.525 mm	6.35 mm	±0.10 mm	6 bar (87 psi)	18 bar (261 psi)	50 mm	100 m
1/2″	12.70 mm	9.60 mm	±0.10 mm	4 bar (58 psi)	12 bar (174 psi)	80 mm	100 m

4. Packaging, appearance and customisation (OEM/ODM)

• Standard colours: milky white, dark blue, black, green and yellow (custom colours available).

• Example of metre-marked printing: AIR PASSAGE PE 8X5 001M. Customer brand logos, model identification and continuous metre markings can be customised.

• Packaging: stretch-film wrapping.

Source data and translation notes

The values in the source data sheet are laboratory reference values at ambient temperature. Actual operating conditions must be verified by testing.

Numbers, units and inequalities are reproduced from the supplied Chinese document; PE model codes are shown with the YN- prefix used on the product page (YN-PE 0425 etc.). Some bar/psi pairs in the source are inconsistent; no conversion has been substituted. Confirm the applicable pressure rating with the manufacturer before specification or use. Burst pressure is not a working-pressure rating.

Media lists, performance, compliance and special-use statements above are translated source statements, not independent certification or application approval. Obtain applicable material/finished-product documents and validate the medium, concentration, temperature, pressure and fitting combination for the intended use.

English document prepared from the user-supplied V1 source version. AIR PASSAGE is retained as a product marking.