YUANNAI TUBE

Perfluoroalkoxy (PFA) 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 virgin perfluoroalkoxy (PFA) resin, with no recycled or reprocessed material added. Recommended for industrial chemical-media transfer, laboratory equipment connections and auxiliary equipment lines requiring corrosion and high-temperature resistance. PFA offers good chemical resistance, electrical insulation and high-temperature performance, and can be melt-processed into tubing.

• Suitable media listed in the source: strong acids, strong alkalis, strong oxidising agents and various organic solvents.

• Main applications: auxiliary chemical-equipment lines, laboratory fluid connections, automation equipment and transfer lines requiring visual monitoring of media flow.

• Appearance: natural translucent products are preferred; transparency, colour and surface gloss are subject to the approved sample.

• Semiconductor-related uses listed in the source: wet etching, wafer cleaning, high-purity chemical and ultrapure-water transfer. These listed uses do not independently establish a purity grade or application approval.

• Source environmental/special-compliance statement: conforms to RoHS and REACH environmental requirements. See the source-statement qualification on page 2.

2. Physical and mechanical properties

Test item	Suggested / reference value
Density	Approx. 2.12-2.17 g/cm³
Hardness	60 Shore D
Tensile strength	>25 MPa
Elongation at break	>250%
Melting temperature	Approx. 300-310°C
24-hour water absorption	0.01%
Finished-product service temperature range	-200°C to +260°C

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-PFA 0425	4.0 mm	2.5 mm	±0.10 mm	16 bar (224 psi)	48 bar (672 psi)	30 mm	100m
YN-PFA 0640	6.0 mm	4.0 mm	±0.10 mm	17 bar (238 psi)	52 bar (728 psi)	36 mm	100m
YN-PFA 0850	8.0 mm	5.0 mm	±0.10 mm	20 bar (280 psi)	60 bar (840 psi)	50 mm	100 m
YN-PFA 0855	8.0 mm	5.5 mm	±0.10 mm	20 bar (280 psi)	60 bar (840 psi)	55 mm	100 m
YN-PFA 0860	8.0 mm	6.0 mm	±0.10 mm	13 bar (182 psi)	40 bar (580 psi)	64 mm	100 m
YN-PFA1065	10.0 mm	6.5 mm	±0.10 mm	19 bar (270 psi)	58 bar (812 psi)	80 mm	100 m
YN-PFA 1080	10.0 mm	8.0 mm	±0.10 mm	14 bar (196 psi)	42 bar (588 psi)	88 mm	100 m
YN-PFA 1280	12.0 mm	8.0 mm	±0.10 mm	18 bar (261 psi)	56 bar (784 psi)	72 mm	100 m
YN-PFA 1410	14.0 mm	10.0 mm	±0.10 mm	12 bar (168 psi)	36 bar (504 psi)	98 mm	100 m
YN-PFA 1612	16.0 mm	12.0 mm	±0.10 mm	10 bar (87 psi)	30 bar (420 psi)	128 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	16 bar (232 psi)	64 bar (928 psi)	14 mm	100 m
1/4″	6.350 mm	4.35 mm	±0.10 mm	10 bar (145 psi)	40 bar (580 psi)	37 mm	100 m
3/8″	9.525 mm	6.35 mm	±0.10 mm	10 bar (145 psi)	40 bar (580 psi)	40 mm	100 m
1/2″	12.70 mm	9.60 mm	±0.10 mm	6 bar (87 psi)	24 bar (348 psi)	100 mm	100 m

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

- Standard colour: high-transparency clear.
- 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, models, units and inequalities are reproduced from the supplied Chinese document. 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.

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