



*Specifically
designed for use
with UV inks*



Highly chemical-resistant Tubing for UV ink conveying

Especially with UV inks, UV blocking is an industry standard. Tygon® Ink 1000 has demonstrated in accelerated aging tests that, thanks to its patented technology, the integrity of the ink is maintained. This makes the tube ideally suited for applications in the UV market.

Chemical Resistance

When pumping inks, chemical compatibility and flexibility are among the most important prerequisites for reliable performance.

Tygon® Ink 1000 was specifically developed for use with UV inks, for example in:

- Digital printing
- 3D printing

The product has been tested with various thinners (IBOA, VMOX, HDDA, etc.) and demonstrated excellent chemical resistance over an extended testing period.

Features and Benefits

- Excellent chemical resistance to low-molecular-weight acrylic monomers
- High flexibility
- UV-blocking
- Low extractable content
- Long service life

Typical Applications

- Digital printing
- Inkjet printing
- Large format printing
- Packaging printing
- 3D printing

Tygon® Ink 1000 Standard Sizes

Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Max. Working Pressure* 50°C (122°F)	Vacuum Rating at 22°C (73°F)
TY3,0IN5,0	3,0 mm (0.118")	5,0 mm (0.197")	1,0 mm (0.039")	9,5 mm	9,0 bar	5,7 bar	760 mmHg
TY3,18IN6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")	6,4 mm	11,6 bar	7,2 bar	760 mmHg
TY4,0IN6,0	4,0 mm (0.157")	6,0 mm (0.236")	1,0 mm (0.039")	15,9 mm	7,4 bar	4,9 bar	760 mmHg
TY4,76IN7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")	15,9 mm	8,4 bar	5,9 bar	760 mmHg
TY6,0IN8,0	6,0 mm (0.236")	8,0 mm (0.315")	1,0 mm (0.039")	19,1 mm	5,2 bar	3,9 bar	760 mmHg

The specified operating and burst pressure values were derived from tests under controlled laboratory conditions. Numerous factors can affect the pressure resistance of the tubing, including temperature, chemical exposure, stress, pulsation, and connection to fittings. It is therefore essential that the user performs tests simulating the application conditions before specifying the tubing.

Typical Physical Properties of Tygon® Ink 1000

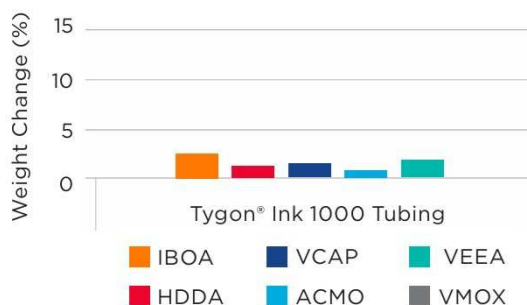
Property	ASTM Method	Inner	Outer
Durometer Hardness	D2240	54° Shore D, 15s	90° Shore A, 15s
Color	-	black	black
Specific Gravity	D792	0,93	0,91
Max. Recommended Operating Temperature	-	55°C	55°C
Flex Modulus	D790	6825,8 MPa	158.6 MPa
Tensile Strength	D412	18,8 MPa	16,1 MPa
Ultimate Elongation	D412	410,00%	470,00%
Tear Resistance	D1004	0,09 kN/m	0,06 kN/m
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 Hours	D395 Method B	34,00%	54,00%
Water Absorption, 24 hrs at 73°F (23°C)	D570	< 0.01 %	67,00%

Unless otherwise stated, all tests were performed at room temperature (23 °C / 73 °F). The reported values were obtained on extruded specimens with a thickness of 0.075 in. (1.9 mm) or on injection-molded ASTM test plates or ASTM hardness test specimens (durometer specimens) with a thickness of 0.075 in. (1.9 mm).

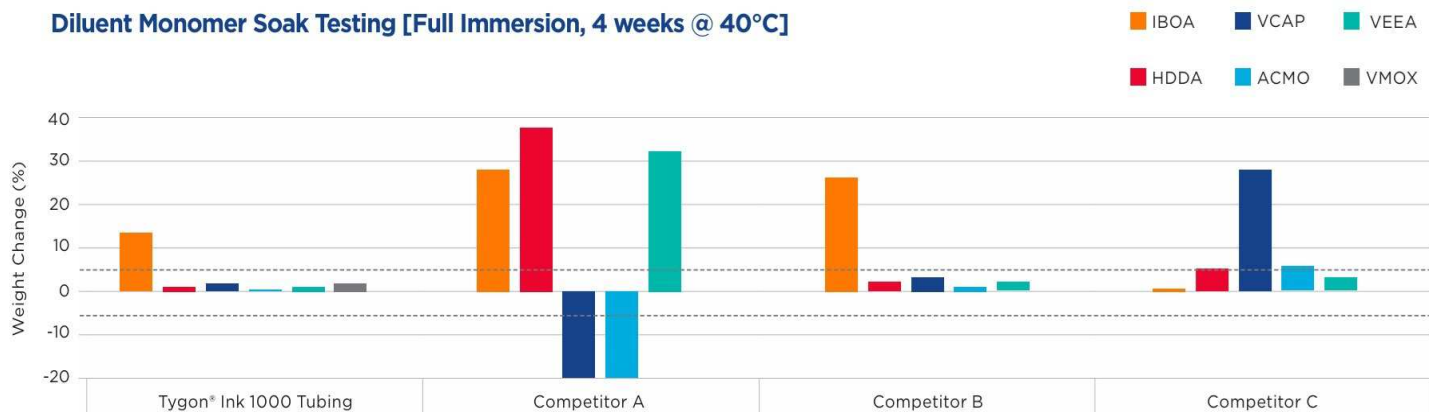
Product Characteristics

Opacity	opaque
UV Blocking (min. 200-550nm)	yes

Diluent Monomer Soak Testing [Cap-and-Fill, 4 weeks @ 40°C]



Diluent Monomer Soak Testing [Full Immersion, 4 weeks @ 40°C]



Note: Passable weight change limits are indicated by the dashed lines (±5% weight gain or loss).

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