



# Tygon<sup>®</sup> Ink 1000

## Ultra Chemical Resistant Tubing for UV Ink Transfer Applications

For UV inks in particular, UV blocking properties is an industry standard. Tygon<sup>®</sup> Ink 1000 has shown over an accelerated testing period that it can maintain the ink integrity with our patented technology, making it an ideal candidate for the UV market.

### Chemical Resistance

In the ink transfer space, chemical compatibility and flexibility are two of the most important criteria for ensuring satisfactory performance. Tygon<sup>®</sup> Ink 1000 was specially engineered to deliver premium performance in an environment where UV inks are used such as digital printing and 3D printing applications. This product has been tested with a variety of diluents (IBOA, VMOX, HDDA, etc.) and has shown excellent chemical resistance properties over an extended testing phase.

### Typical Applications

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



### Features and Benefits

- Outstanding chemical resistance to small acrylic monomers
- Flexibility
- UV blocking
- Low extractable levels
- Long service life

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Part Number	ID		OD		Wall Thickness		Length		Min. Bend Radius		Max. Working Pressure				Vacuum Rating	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)	(in)	(mm)	73°F (psi)	23°C (bar)	122°F (psi)	50°C (bar)	73°F (inHg)	23°C (mmHg)
AOC1S1517	0.118	3	0.197	5	0.039	1	49.2	15	0.375	9.5	131	9.0	82	5.7	29.9	760
AOC1S2266	0.126	3.2	0.252	6.4	0.039	1	49.2	15	0.25	6.4	168	11.6	104	7.2	29.9	760
AOC1S1518	0.157	4	0.236	6	0.039	1	49.2	15	0.625	15.9	107	7.4	71	4.9	29.9	760
AOC1S2136	0.189	4.8	0.315	8	0.039	1	49.2	15	0.625	15.9	122	8.4	94	5.9	29.9	760
AOC1S1520	0.236	6	0.315	8	0.039	1	49.2	15	0.75	19.1	75	5.2	57	3.9	29.9	760

## Typical Physical Properties

Property	ASTM Method	Value or Rating	
		Inner	Outer
Durometer Hardness, (Shore A), 15 sec	D2240	54 (Shore D)	90
Flex Modulus, kpsi (MPa)	D790	990 (6825.8)	23 (158.6)
Tensile Strength, psi (MPa)	D412	2730 (18.8)	2330 (16.1)
Ultimate Elongation, %	D412	410	470
Tear Resistance, lb-f/inch (kN/m)	D1004	800 (0.09)	525 (0.06)
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hours	D395 Method B	34	54
Specific Gravity	D792	0.93	0.91
Water Absorption, % 24 hrs at 73°F (23°C)	D570	< 0.01	0.067
Max. Recommended Operating Temperature °F (°C)	-	131 (55)	
Color	-	Black	

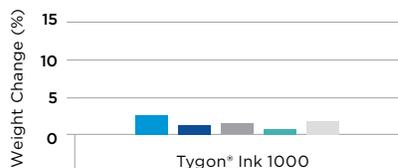
Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the tubing's ability to withstand pressures, including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the tubing for use.

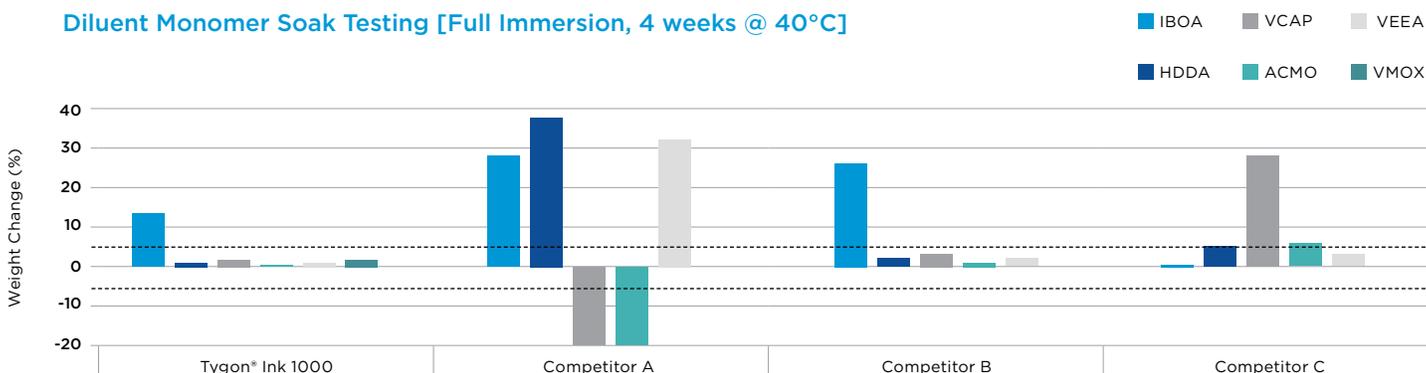
## Product Characteristics

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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**NOTE:** The data and details given in this document are correct and up to date. This document is intended to provide information about the product and possible applications. This document is not the product specification and does not provide specific features, nor does it guarantee product performance in specific applications. Saint-Gobain cannot anticipate or control the conditions of the field and for this reason strongly recommends that practical tests are conducted to ensure that the product meets the requirements of a specific application.

Tygon® is a registered trademark.