

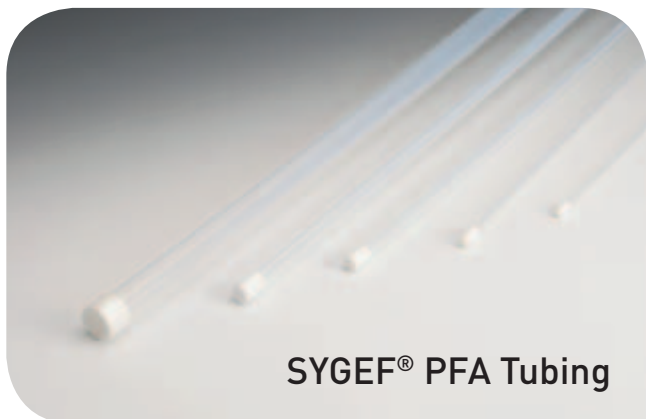
→ **Completely
Controlled Process**

Product Specification

SYGEF® PFA

**High Purity Piping Systems
in PFA HP**

SYGEF® PFA



SYGEF® PFA Tubing



SYGEF® PFA Fittings



SYGEF® PFA Valves



SYGEF® PFA Tools

SYGEF® PFA completes the Total Plastic Solution for the distribution of high purity chemicals. The highly innovative PFA tubing, valves and Flaretype fittings sustain your needs up to 200 °C. We offer written guarantees of life span and chemical resistance on request.

SYGEF® PFA – Product Specification

	SYGEF®PFA Tubing	SYGEF® PFA Fittings	SYGEF® PFA Valves
	TL/TIL	LQ3 Series	LVQ Series
Material	Super PFA Mitsui DuPont 451HP-J	PFA Mitsui DuPont 440HP-J	PFA Mitsui DuPont 440HP-J
Colour	Translucent (as a material colour)	Translucent (as a material colour)	Translucent (as a material colour)
Melting Point	≥ 300 °C	from 300 to 310 °C	from 300 to 310 °C
Density	from 2.12 to 2.17 g/cm ³	from 2.12 to 2.17 g/cm ³ (ASTM D792)	from 2.12 to 2.17 g/cm ³ (ASTM D792)
Linear Expansion Intensity	≥ 26.0MPa
Tensile Strength	...	from 24 to 34 MPa (ASTM D638)	from 24 to 34 MPa (ASTM D638)
Elong ation	≥ 300% (ASTM D638)	≥ 300% (ASTM D638)	≥ 300% (ASTM D638)
Flexural Modulus	...	from 0.66 to 0.69 GPa (ASTM D790)	from 0.66 to 0.69 GPa (ASTM D790)
Thermal Conductivity	0.25W/mK (ASTM C177)	0.25W/mK (ASTM C177)	0.25W/mK (ASTM C177)
Surface Resistivity	≥ 10 ¹⁸ Ω cm	≥ 10 ¹⁸ Ω cm	≥ 10 ¹⁸ Ω cm

	SYGEF®PFA Tubing	SYGEF® PFA Fittings	SYGEF® PFA Valves
	TL/TIL	LQ3 Series	LVQ Series
Dimension	from 1/8" to 1" from 4 mm to 19 mm (other dimensions on request)	from 1/8" to 1" (other dimensions on request)	from 1/4" to 1" (other dimensions on request)
Pressure Rating	from -98 KPa (-0.98 bar) to 1.0 MPa (10 bar)	from -98 KPa (-0.98 bar) to 1.0 MPa (10 bar)	LVQ 20 to 40: from -98KPa (-0.98 bar) to 0.5MPa (5 bar) LVQ 50 to 60: from -98KPa (-0.98 bar) to 0.4 MPa (4 bar)
Temperature Rating	from 0 to 260 °C	Nut PFA: from 0 to 200 °C	fluid Temperature: from 0 to 100 °C ambient Temperature: from 0 to 60 °C
Production	Extrusion: Produced under clean room class 10.000 (U.S. Fed. Std. 209E) conditions	Injection Molding: Produced and assembled under clean room class 10.000 (U.S. Fed. Std. 209E) conditions or better	Injection Molding: Produced and assembled under clean room class 10.000 (U.S. Fed. Std. 209E) conditions or better
Surface Finish	Ra max ≤ 0.2 μm (as a guaranteed value) Ra = 0.04 μm* (typical representative value) * not guaranteed	In conformity with SEMI F57 Ra max ≤ 0.38 μm	In conformity with SEMI F57 Ra max ≤ 0.38 μm
Marking	Tube laser marked during the production process to ensure full traceability Brand Name (SYGEF® PFA) Lot Number Material, Dimension, Pressure Rating	Die - sinking Size and Lot Number	Die - sinking Size and Lot Number
Labeling	Brand Name (SYGEF® PFA) Product Description (PFA Tube) Model Number (e.g. TIL-xx) Material (DuPont 451 HP-J) Lot Number Length	Brand Name (SYGEF® PFA) Product Description (PFA Fitting) Model Number (e.g. LQ3-xx) Material (DuPont 440 HP-J) Lot Number Dimension	Brand Name (SYGEF® PFA) Product Description (PFA Valve) Model Number (e.g. LVQ-xx) Material (DuPont 440 HP-J) Lot Number Dimension
Testing and Inspection	Visual Inspection Dimensional Inspection Pressure Testing Surface Finish Periodic Leach-out per Semi F40/F57 Inclusions	Visual Inspection Dimensional Inspection Pressure Testing Surface Finish Periodic Leach-out per Semi F40/F57 Inclusions	Visual Inspection Dimensional Inspection Operation Inspection Valve Leakage Testing Back Pressure Leakage Testing Pilot Pressure Leakage Testing External Leakage Testing Inclusions
Approvals / Conformance	FDA 21 CFR 177.1550 (as a material) Flammability UL-94 V-0 SEMI F57 (Conformity)	FDA 21 CFR 177.1550 (as a material) SEMI F57 (Conformity)	FDA 21 CFR 177.1550 (as a material) SEMI F57 (Conformity)
Documentation ⁽¹⁾	Certificate of Conformance with FDA EN 10204 2.2 EN 10204 3.1	Certificate of Conformance with FDA EN 10204 2.2 EN 10204 3.1	Certificate of Conformance with FDA EN 10204 2.2 EN 10204 3.1
Packing	Tube capped and double bagged in a specified inner and outer bag under cleanroom class 10.000 (U.S. Fed. Std. 209E) conditions	Each Fitting double bagged in a specified inner and outer bag under cleanroom class 10.000 (U.S. Fed. Std. 209E) conditions	Each Valve double bagged in a specified inner and outer bag under cleanroom class 10.000 (U.S. Fed. Std. 209E) conditions
Main Applications	Fluid compatibility: Inert gas, DI Water, Chemical fluids according to chemical resistance data sheet		

⁽¹⁾ on Request

SYGEF® PFA → packed to preserve value



Any questions? Would you like for us to contact you?

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The technical data is not binding and not an expressly warranted characteristic of the goods.
It is subject to change. Please consult our General Conditions of Supply.

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