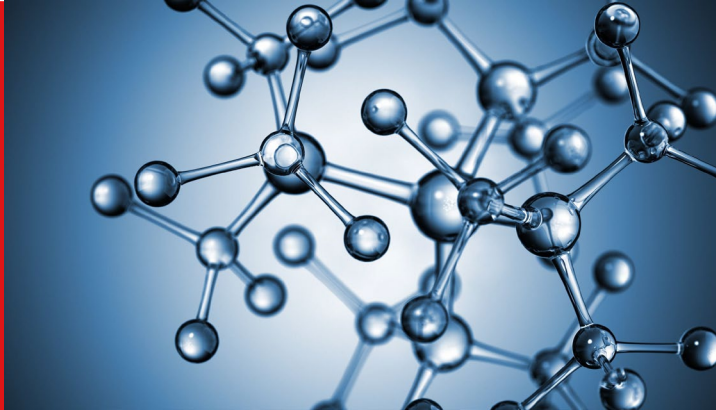


# CyclAFlor® Clear

## Amorphous Fluoropolymers



### Experience the Advanced Capabilities of Amorphous Fluoropolymers with Chromis Technologies

Amorphous fluoropolymers – known for their remarkable combination of transparency, high-temperature stability, UV resistance, and ease of processing into thin films – are integral to a multitude of critical industrial applications. Thanks to their unique property profiles, our materials excel in roles such as anti-reflective and protective coatings, gas separation membranes, high-performance optical and sensing fibers, and digital microfluidics.

### Customized Solutions Beyond Conventional Offers

Previously, access to amorphous fluoropolymers was confined to a limited selection of standard formulations, often not fully aligned with specific application needs. Chromis Technologies disrupts this status quo by providing bespoke polymer solutions tailored precisely to your requirements.

### Innovative Engineering for Optimal Performance

Our commitment to innovation is evident in our revolutionary approach to the chemistry of amorphous fluoropolymers. We've advanced the field with our proprietary cyclic fluoromonomer synthesis and polymerization techniques, which not only cater to the exacting demands of specialized applications but also address environmental concerns by eliminating the need for harmful fluorosurfactants like PFOA, PFOS, and GenX. Our advanced methods enable us to:

- **Customize Functional Groups:** Adapt chemical functionalities to enhance performance in complex systems.
- **Control Molecular Weight and Polydispersity:** Dial in the desired mechanical properties, and processability.
- **Adjust Solution and Melt Viscosity:** Tailor solution and melt viscosity to suit specific processing environments.
- **Modify Surface Properties:** Control adhesion, surface energy, and contact angles to meet unique application requirements.
- **Control Solubility:** Adjust solubility for targeted solvents.

### Spotlight on CyclAFlor® Clear

Comparable to AGC CYTOP® in composition and fundamental properties, we can precisely adjust CyclAFlor® Clear to meet and exceed the performance requirements of your specific applications.

### Engage with Our Experts

If your project faces technical challenges that amorphous fluoropolymers could solve, reach out to us. Whether we already have the perfect solution or need to craft one, our team is equipped to design and deliver polymers that meet your exact specifications.

**At Chromis Technologies, we engineer fluoropolymers to do exactly what you want.**



*Engineering fluoropolymers to do exactly what you want.*

Chromis Technologies

732-764-0900

info@chromistechnologies.com

30 Techology Drive, Suite 1J

Warren, NJ 07059

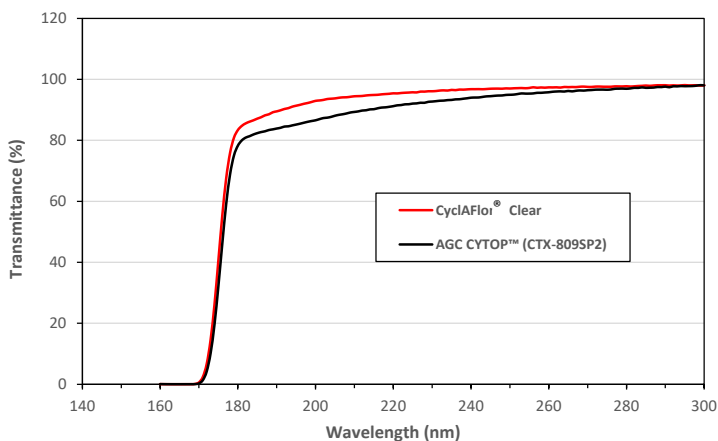
www.chromistechnologies.com

# CyclAFlor® Clear Details

Properties	CyclAFlor® Clear	AGC CYTOP®	CyclAFlor® Clear Options
Polymer composition	PBVE homopolymer	PBVE homopolymer	
<b>Resistant to hydrocarbons and other chemicals</b>			
Standard functional group	-CF <sub>3</sub> , -COOH	-CF <sub>3</sub> , -COOH, -CONH ~ Si(OR) <sub>n</sub>	custom end groups available
Inherent viscosity (IV)	IV <sub>low</sub> = 0.21 dL/g typical IV <sub>high</sub> = 0.31 dL/g typical	IV <sub>low</sub> = 0.21 dL/g typical IV <sub>high</sub> = 0.31 dL/g typical	IV and polydispersity can be adjusted to specific targets
Density	2.03 g/cm <sup>3</sup> @ 25°C	2.03 g/cm <sup>3</sup> @ 25°C	
<b>Retains strong physical properties at elevated temperatures</b>			
Glass transition temperature (T <sub>g</sub> )	108°C	108°C	
Onset of thermal decomposition	>400°C		
<b>Unique optical characteristics are suitable for optical fiber core and cladding, UV environments</b>			
Refractive index	1.34 (589 nm at 20°C)	1.34 (589 nm at 20°C)	
Light transmittance	>95% (visible range, 200 μm film)	>95% (visible range, 200 μm film)	
Light absorption (internal transmittance)	<0.1% (>99.9%) @ 280 nm – 1,000 nm, 5 mm plaque	<0.1% (>99.9%) @ 250 nm – 1,700 nm, 5 mm plaque	
<b>Ideal properties for water- and oil-repellent applications</b>			
Contact angle with water	113° @ 23°C and 70% RH	112°	
Critical surface tension	19 mN/m	19 mN/m	
<b>Can be easily applied as a solution to a wide variety of substrates as a very thin (sub-micron) coating</b>			
Solvent	PFC, HFE, HFC	PFC, HFE, HFC	custom solvents available
Solvent boiling point	100 – 180°C	180°C (PFC), 100°C (HFE, HFC)	
Solution concentration	9 ± 0.5%		custom concentrations available
Filtration	0.2 – 5.0 μm	0.2 – 5.0 μm	custom filtration available

**The standard formulation of CyclAFlor® Clear is comparable to AGC CYTOP® and can be engineered to better meet your needs.**

**Typical UV Transmittance  
CyclAFlor® Clear vs. CYTOP™  
(200 μm thin films)**



**Typical Thermal Gravimetric Analysis  
CyclAFlor® Clear vs. CYTOP™**

