

# Hyflon® AD 40 Solutions

## Perfluoropolymer

Hyflon® AD 40 are a full family of amorphous perfluoropolymers, also available as dilute solutions.

Hyflon® AD 40 Solutions resemble semicrystalline perfluoropolymers in their performances, since they exhibit high temperature stability, excellent hydrophobicity and chemical resistance as well as very low surface energy.

Hyflon® AD 40 Solutions are based on a variable amount of either a high or low molecular weight Hyflon® AD perfluoropolymer dissolved in a perfluorinated solvent. They can be considered ready-to-use solutions suitable for application in the most demanding solution process-technologies.

Hyflon® AD 40 Solutions can provide uniform, thin films coatings – down to nm thicknesses if required – by the most diverse coating techniques and with the advantage of a baking temperature far below what is usually applied to perfluoropolymers.

Examples of typical applications for Hyflon® AD 40 Solutions include protective coatings, interlayer dielectric films and pellicles for electronics.

The main features of Hyflon® AD 40 Solutions are:

- An amorphous glassy polymer structure
- Solubility in perfluorinated solvents
- Available in “Fluorinated – High Purity” version
- Low dielectric constant
- Excellent optical properties such as
  - High UV transmittance
  - Low refractive index

### General

Material status	• Commercial
Availability	<ul style="list-style-type: none"> <li style="margin-right: 20px;">• Africa &amp; Middle East</li> <li style="margin-right: 20px;">• Europe</li> <li style="margin-right: 20px;">• North America</li> <li>• Asia Pacific</li> <li>• Latin America</li> </ul>
Features	<ul style="list-style-type: none"> <li style="margin-right: 20px;">• Amorphous</li> <li>• Excellent optical properties</li> <li>• Good chemical resistance</li> </ul>
Uses	<ul style="list-style-type: none"> <li style="margin-right: 20px;">• Films</li> <li>• Coatings</li> </ul>
Forms	• Liquid
Processing method	• Coating

### Hyflon® AD solutions – Commercial grades

Product	Polymer Type	Solvent Type	Polymer content (% w/w)	Brookfield Viscosity at 25°C [cP]	Transmittance in UV-Vis Range	Remarks
Hyflon® AD 40H S	Hyflon® AD 40H	Galden® D02TS	2.5 ± 0.5	250	> 95 %	
Hyflon® AD 40L S	Hyflon® AD 40L	Galden® D02TS	9.0 ± 0.5	600	> 95 %	

### Hyflon® AD solutions – Limited distribution grades

Product	Polymer Type	Solvent Type	Polymer content (% w/w)	Brookfield Viscosity at 25°C [cP]	Transmittance in UV-Vis Range	Remarks
Hyflon® AD 40H SF	Hyflon® AD 40H	Galden® D02TS	2.0 ± 0.5	80	> 99 %	High Purity
Hyflon® AD 40L SF	Hyflon® AD 40L	Galden® D02TS	9.0 ± 0.5	310	> 99 %	High Purity

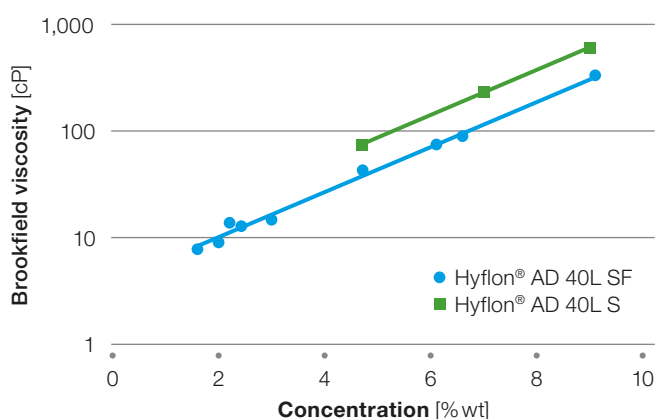
# Hyflon® AD 40 Solutions

## Perfluoropolymer

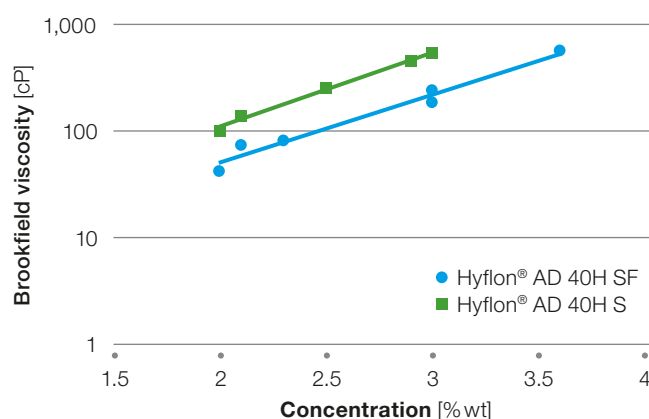
### Common features

Property	Typical Value	Unit	Test Method
Specific gravity	1.93–1.98	g/cc	ASTM D792
Glass transition temperature	95 ± 5	°C	ASTM D3418
Contact angle with water	123	°	
Contact angle with hexadecane	60	°	
Refractive index at 589nm	1.33		D542
Water absorption	< 0.01	%	D570
Dielectric constant	2	at 1 kHz	D150

### Hyflon® AD 40L Solutions: Brookfield viscosity at 25 °C



### Hyflon® AD 40H Solutions: Brookfield viscosity at 25 °C



### Safety & toxicology

Before using Hyflon® AD 40 Solutions consult the product Safety Data Sheet and follow all label directions and handling precautions.

Handling and processing should only be carried out in well ventilated areas. Vapor extractor units should be installed above processing equipment. Fumes must not be inhaled and eye and skin contact ought to be avoided. In case of skin contact, wash with soap and water. In case of eye contact

flush with water immediately and seek medical help. Do not smoke in areas contaminated with powder, vapor or fumes. See Safety Data Sheet for detailed advice on waste disposal methods.

### Storage and Handling

Hyflon® AD 40 Solutions can be stored without shelf life issues when kept in a clean and dry area at ambient temperatures. Opened containers should be tightly resealed to prevent dust contamination.

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