

PFC 9004

Perfluoro Carbon Coating Fluid

Typical Properties			
Property	Unit	Value	Test Method
Color of Component		Transparent	Visual
Density	Gram /cc	1.42	ASTM D792
Viscosity at 25°C	cps	200	ASTM D2196
Property as Cured			
Color		Transparent	Visual
Hardness	Shore A	30	ASTM D2240
Dielectric Constant	@100Hz	3	ASTM D150
Dissipation Factor	@100 Hz	< 0.01	ASTM D150
Dielectric Strength	Volt/mil AC	> 400	ASTM D149
Volume Resistivity	Ohm-cm	> 10E+14	ASTM D257
Tg	°C	< -75	DSC
Weight Loss in pH=1 Nitric Acid @ 25C for 48 hrs	%wt	< 5%	UAITM*
Weight change in Dexron VI Fluid @ 150C for 1000 hrs	%wt	< 3%	UAITM*
Useful Temperature Range	°C	-55 to 200	TGA
Cure Profile			
Cure at 125°C	Minute	30	DSC
Cure at 150°C	Minute	10	DSC

These figures are only intended as a guide and should not be used in preparing specifications.
 * UAITM – United Adhesives' Internal Test Method

Characteristics

PFC 9004 is perfluoro carbon based one-part, solvent-free coating fluid. After cures at elevated temperature, it forms a transparent elastomer that provides superior protection of electronic devices, circuit boards, silicon dies, flip chips, BGAs, ceramics, LTCC, aluminum, copper, stainless steel, etc, from the attacking of caustic chemicals, acids, oils, fuels, corrosive fluids, gasoline, and other corrosive medias. PFC 9004 is both sprayable and dispensable.

Special Features and Benefits

- Superior media resistance
- High thermal stability
- Flexible for stress compliance
- Low viscosity for thin layer coating
- Low ionic content
- Solvent free

Typical Applications

- Aerospace electronics
- Automotive electronics
- Semiconductor and Telecommunications
- Strong acidic environment applications
- Applications with submerge in hot oils
- Resistance to thermal stress

PFC 9004 has a shelf life of at least 6 months when stored in refrigerator (4°C) in the originally sealed container. For thixotropic (non-sag) version of perfluoro coating, please select United Adhesives' product PFC 9006.

Processing Instruction

Please keep applied surface clean and avoid using this material on any surface that contains contaminant such as sulfur, amine, phosphorous, organo-metals, acid, dust, etc. To maintain good adhesion, the surface may be cleaned with organic solvent such as IPA, acetone, ethyl alcohol, etc, or treated with plasma or any methods that can enhance the bonding strength.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives, Inc.

Storage

PFC 9004 has a shelf life of at least 6 months when stored in refrigerator (4°C) in the originally sealed container. The 'Best use before end' date of each batch appears on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case, however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives, Inc.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. For technical, quality, or product safety questions, please contact directly to United Adhesives Inc.