

Semiconductor Fluid Handling — Materials Matter

At 3M, we know that material purity is important to protect semiconductor manufacturing output. Our global application engineers know these requirements and actively participate in understanding the current needs while also looking towards the future.

High Purity for Critical Operations

3M[™] Dyneon[™] Ultra High Purity PFA "UHPZ" materials offer very low levels of extractable impurities making them an exceptional option for critical semiconductor liquid chemical components. Dyneon PFA UHPZ materials have been shown to meet low extractable levels required by SEMI C90-1015 for raw material pellets. Below is a snapshot view of the important fluid handling standards related to fluoroplastic materials. Contact 3M with questions related to our 3M[™] Dyneon[™] Fluoroplastics and their use in semicon applications. The result: high purity tubing and components, and less concern of contamination or corrosion.

Chemical Distribution Systems	Semifinished Goods		Tanks & Containment Liners		Parts & Components		
Tubing Gaskets, Valves, & Fittings	Sheets Drums & Conta ttings Rolls Tanks & Vesse		ainers Wafer Carriers Linings Basins				
		SEMI F57		SEMI C90			
		Component	Pellet	Compo	onent	Pellet	
Current Version		SEMI F57 - 0120		SEMI C90 - 1015			
Updated		Jan 2020		Oct 2015			
Fluid (extractant)		UPW		5% HNO ₃			
Temperature		85° C		Ambient		70° C	
Duration		7 days		24 hours		4 hours	
Units		µg/m²		μg/m²			
Impurity							
Metals		>20			Iron		
lons		NH, Br,	-		-		

Total Organic Carbon

Organics

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