

TECHNICAL DATA SHEET

PECO-75256 PFA Powder

PECOAT® PECO-75256 is a melt-processable fluoropolymer powder for electrostatic spraying, fluidized bed dipping and rotational lining. Semi-transparent milky white powder, excellent chemical resistance, high temperature resistance and non-stick property.

1. Powder Physical Properties

Item	Typical Value	Unit	Test Standard
Appearance	Free-flowing powder, semi-transparent milky white, no agglomeration	-	Visual inspection
Resin Specific Gravity	2.12 ~ 2.17	g/cm ³	ASTM D792 / GB/T1033.1
Bulk Density	0.5 ~ 0.9	g/mL	ASTM D1895
Particle Size D50	20 ~ 60 (Electrostatic spray) 150 ~ 300 (Fluidized bed / Rotolining)	μm	Laser diffraction
Melting Point (DSC)	300 ~ 310	°C	ASTM D3307
Melt Flow Rate (MFR) @372°C, 5kg load	2 ~ 30	g/10min	ASTM D3307
Moisture Content	< 0.02	%	Gravimetric method

2. Cured Coating Mechanical Properties

(Substrate: Carbon steel / Stainless steel, fully sintered coating)

Item	Typical Value	Unit	Test Standard
Tensile Strength	20 ~ 32	MPa	ASTM D638
Elongation at Break	250 ~ 350	%	ASTM D638
Hardness	Shore D 50 ~ D58	-	ASTM D2240
Static Friction Coefficient (vs steel)	0.05 ~ 0.08	-	Baudenleben test
Water Contact Angle	102 ~ 106	°	Contact angle meter
Taber Abrasion CS-17 wheel, 1kg load, 1000 cycles	5 ~ 15	mg	ASTM D4060
Adhesion	No peeling by cross cut test; no pinhole by spark test	-	ASTM D3359 / NACE SP0188

Disclaimer: All data shown are typical values and intended for reference only. It does not constitute a product specification. The user shall determine the suitability of the product for their specific application. Our company reserves the right to modify product information without prior notice.

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3. Thermal Properties of Cured Film

Item	Typical Value	Unit
Continuous Service Temperature	-200 ~ 260	°C
Short-term Peak Temperature	280 ~ 290	°C
Sintering Temperature	360 ~ 380	°C
Flammability	UL94 V-0	-
Coefficient of Linear Thermal Expansion	120 ~ 140 ×10 ⁻⁶	/°C

4. Electrical Properties of Cured Film

Item	Typical Value	Unit	Test Standard
Volume Resistivity	>10 ¹⁸	Ω·cm	ASTM D257
Dielectric Constant @1MHz	2.0 ~ 2.1	-	ASTM D150
Dissipation Factor @1MHz	≤1×10 ⁻⁴	-	ASTM D150
Dielectric Strength	40 ~ 60	kV/mm	ASTM D149

5. Chemical Resistance

Resistant to: Concentrated sulfuric acid, hydrochloric acid, hydrofluoric acid, aqua regia, strong alkalis, strong oxidants, various organic solvents and halogen aqueous solutions, stable at elevated temperature. High purity grade with ultra-low metal ion leaching, suitable for semiconductor wet process.

Not resistant to: Molten alkali metals, elemental fluorine at high temperature, chlorine trifluoride and other super-fluorinating agents.

6. Process & Coating Thickness

Application Process	Recommended Particle Size	Single Coating Thickness	Total Coating Range
Electrostatic Powder Spray	20 ~ 60 μm	80 ~ 250 μm	80 ~ 1000 μm
Fluidized Bed/ Electrostatic Fluidized Bed	150 ~ 300 μm	300 ~ 1000 μm	Up to 2 mm
Rotational Lining	180 ~ 300 μm	1 ~ 5 mm	For large tank lining

7. Compliance

- REACH SVHC Compliant
- FDA food contact grade available for selected grades

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- RoHS compliant

8. Packing & Storage

20 kg per carton box. Inner sealed PE bag, outer carton.

Store in dry, cool and well-ventilated warehouse. Keep away from moisture, direct sunlight and high temperature. Keep tightly sealed when not in use. Shelf life: 24 months under proper storage condition.

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