



Company profile

Shanghai ofluorine chemical technology Co.,LTD was established in 1997. We were dedicated to manufacture and sales PVDF resin(polyvinylidene fluoride), fluororubber, FEVE fluorocarbon resin, PVDF resin(including T-1 PVDF for coatings, T-2 PVDF for powder coating, D-1 PVDF lithium ion battery binders, 904 PVDF for water treatment membranes, J-2 PVDF extrusion grade, Z-1 PVDF injection grade, M-1 PVDF molding grade, PVDF for cable etc). We supply high quality raw materials for our customers. There are well trained, veteran engineers in our company.

Main products

1. T-1 PVDF for Coating



T-1 PVDF for coatings is solid powder, it can mixed with acrylic resin, additive, and become superior performance baking PVDF fluorocarbon coatings. Compare with other grade of PVDF, T-1 is more suitable for stoving finish, baking light color coatings.

T-1 PVDF powder as raw materials, through mixtures, spray process, the fluorocarbon coatings have good mechanical strength, flexibility, good irradiation resistant, excellent adverse weather conditions resistant, and stability in wide temperature range.

T-1 Technical data sheet:

Properties	Typical Values	Standard
General Appearance	White powder	
Odor	None	
Purity	99.5%	
Standard specific gravity	1.74-1.77	ASTM D792, at 23/23°C



Shanghai Ofluorine Chemical Technology Co.,LTD

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Melting point	156-165℃	ASTM D3418,10℃/min
Melt flow index	0-2.0g/10min	ASTM D1238,230℃,10kg
Thermal decomposition temperature	382-393℃	TGA,1%Wt.loss.Air
Moisture	0.1%	Karl Fischer
Hegman grind	5.5	D1210,B

Packing: 20kg/carton



2. T-2 PVDF for powder coating



High melt flow rate, Low melt viscosity.

T-2 PVDF has characteristic of chemical resistance, heat resistance, high mechanical strength, high wear resistance, anti-ultraviolet, anti-irradiation etc.

Technical data sheet:

Properties	Typical Values	Standard
General Appearance	Off-white powder	
Melt flow rate	18.0-45.0g/10min	ASTM D1238, 230℃,2.16kg
Bulk density	200-400g/L	HG/T 2900
Standard specific gravity	1.77-1.79	ASTM D792
Melting point	164-172℃	ASTM D3418
Hardness	75-76	ASTM D2240
Moisture	0.1%	Drying method

Packing: 20kg/carton





3. D-1 PVDF Lithium Ion Battery Binders



D-1 PVDF Powder has good solubility in some solvent, it is suitable for lithium ion battery industry as binder.

D-1 PVDF is a homopolymer with high dielectric constant, which shows high viscosity and bonding properties in some solvent, easy to form film. D-1 PVDF powder as raw materials, the lithium battery membrane have good chemical stability temperature stability, excellent mechanical strength and processability.

Technical data sheet.

Properties	Typical Values	Standard
General Appearance	White powder	
Odor	None	
Standard specific gravity	1.74-1.77	ASTM D792, at 23/23°C
Melting point	160-168°C	ASTM D3418
Solubility	Solution is clear and transparent, no impurity and insoluble matter	30°C, 1hr 1g/10ml NMP
Rotary Viscosity	2500-4500mPa·S	0.1g/ml NMP, 30°C
Moisture	0.1%	Karl Fischer

Packing: 20kg/carton





4. 904 PVDF for water treatment membranes



Ofluorine 904 PVDF Powder for water treatment membranes has good solubility in some special solvent, which is good raw materials for PVDF UF membranes. Ofluorine 904 PVDF as raw materials, the PVDF membranes has excellent mechanical strength and flexibility. It can not be eroded by acid, alkali, strong oxidant, halogens. Good durability to aliphatic hydrocarbons, aromatic hydrocarbons, alcohol, aldehyde etc. In the work of hydrochloric acid, nitric acid, sulfuric acid, dilute alkali liquor, dense alkali liquor(40%) and 100deg.C, which keep stable. Others, 904 PVDF finished products has the properties of gamma-Ray resistant, UV(ultraviolet) resistant, and stability in wide temperature range

Technical data sheet

Property	Typical Values	Standard
Appearance	White powder	
Odor	None	
Standard specific gravity	1.77-1.79	ASTM D792,at 23/23°C
Melting point	160-168°C	ASTM D3418, 10°C/min
Rotary Viscosity	≥0.45 Pa·S	0.1g/ml DMAC, 30°C
Intrinsic Viscosity	1.40-1.90 (10 ² ml/g)	Ubbelohde viscometer
Water absorption	0.1%	Drying loss method
Solubility	Solution is clear and transparent, no impurity and insoluble matter	

Packing:20kg/carton





5. Z-1 PVDF Injection Grade



Low melt viscosity, suitable for injection molding.

Z-1 PVDF pellets as raw materials, the finished products has excellent mechanical strength and tenacity. It can not be eroded by acid, alkali, strong oxidant, halogens. Good durability to aliphatic hydrocarbons, aromatic hydrocarbons, alcohol, aldehyde etc. In the work of hydrochloric acid, nitric acid, sulfuric acid, dilute alkali liquor, dense alkali liquor(40%) and 100°C temperature, its performance keep stable.

Others, Z-1 PVDF finished products has the properties of γ -Ray resistant, UV resistant, and stability in wide temperature range.

Application: manufacture PVDF tubing, PVDF pipes, PVDF sheet, PVDF valves etc.

Technical data sheet

Properties	Typical Values	Standard
General Appearance	White translucent pellets	
Odor	None	
Standard specific gravity	1.77-1.79	ASTM D792,at 23/23°C
Melting point	165-171°C	ASTM D3418,10°C/min
Melt index	15-20g/10min	ASTM D1238,230°C/5kg
Water absorption	≤0.05%	ASTM D570
Tensile strength	≥25MPa	ASTM D638,50mm/min at 23°C
Elongation at break	≥20%	ASTM D638,50mm/min at 23°C
Tensile yield strength	≥40MPa	ASTM D638,50mm/min at 23°C
Elongation at yield	≥10%	ASTM D638,50mm/min at 23°C
Hardness,Shore D	70-80	ASTM D2240

Packing:25kg/carton





6. J-2 PVDF Extrusion Grade



Middle melt viscosity, suitable for extrusion molding.

J-2 PVDF pellets as raw materials, the finished products has excellent mechanical strength and tenacity. It can not be eroded by acid, alkali, strong oxidant, halogens. Good durability to aliphatic hydrocarbons, aromatic hydrocarbons, alcohol, aldehyde etc. In the work of hydrochloric acid, nitric acid, sulfuric acid, dilute alkali liquor, dense alkali liquor(40%) and 100°C temperature, its performance keep stable.

Others, J-2 PVDF finished products has the properties of γ -Ray resistant, UV resistant, and stability in wide temperature range.

Application: manufacture PVDF tubing, PVDF pipes, PVDF sheet, PVDF valves etc.

Technical data sheet

Properties	Typical Values	Standard
General Appearance	White translucent granules	
Odor	None	
Standard specific gravity	1.77-1.79	ASTM D792,at 23/23°C
Melting point	165-171°C	ASTM D3418,10°C/min
Melt flow index	3-10g/10min	ASTM D1238,230°C/5kg
Water absorption	≤0.05%	ASTM D570
Tensile yield strength	≥40MPa	ASTM D638,50mm/min at 23°C
Yield elongation	5-10%	ASTM D638,50mm/min at 23°C
Tensile strength at break	≥30MPa	ASTM D638,50mm/min at 23°C
Elongation at break	≥50%	ASTM D638,50mm/min at 23°C
Hardness,Shore D	70-80	ASTM D2240

Packing:25kg/carton





7. M-1 PVDF Compression Molding Grade

High melt viscosity, suitable for compression molding.

M-1 PVDF pellets as raw materials, the finished products has excellent mechanical strength and tenacity. It can not be eroded by acid, alkali, strong oxidant, halogens. Good durability to aliphatic hydrocarbons, aromatic hydrocarbons, alcohol, aldehyde etc. In the work of hydrochloric acid, nitric acid, sulfuric acid, dilute alkali liquor, dense alkali liquor(40%) and 100°C temperature, its performance keep stable.

Others, M-1 PVDF finished products has the properties of γ -Ray resistant, UV resistant, and stability in wide temperature range.

Technical data sheet

Properties	Typical Values	Standard
General Appearance	White translucent pellets	
Odor	None	
Standard specific gravity	1.77-1.79	ASTM D792,at 23/23°C
Melting point	165-171°C	ASTM D3418,10°C/min
Melt flow index	1-4g/10min	ASTM D1238,230°C/10kg
Water absorption	≤0.05%	ASTM D570
Tensile yield strength	≥40MPa	ASTM D638,50mm/min at 23°C
Yield elongation	5-10%	ASTM D638,50mm/min at 23°C
Tensile strength at break	≥30MPa	ASTM D638,50mm/min at 23°C
Elongation at break	≥20%	ASTM D638,50mm/min at 23°C
Hardness,Shore D	70-80	ASTM D2240

Packing: 25kg/drum





8. PVDF copolymer

Technical data sheet

Item	Standard	Unit	9201F PVDF powder	9201 PVDF granules	9202F PVDF granules	9203 PVDF granules
Composition	ISO 12086	/	VDF/HFP	VDF/HFP	VDF/HFP	VDF/HFP
Grain size	/	/	Average size<15 microns after sieving	/	/	/
Density	ISO R1183D	/	1.77-1.78	1.77-1.78	1.77-1.78	1.77-1.78
Melting point	ISO 416C	°C	141-144	141-144	141-144	132-136
Melt flow index	ISO 1133	g/10mi n	3-8(230°C/1 2.5kg)	3-8(230°C /12.5kg)	3-8(230°C/ 5kg)	3-15(230 °C/3.8kg)
Tensile strength	ISO R527	MPa	26MPa	26MPa	26MPa	20MPa
Elongation at break	ISO R527	%	100	100	100	200
Bending strength	ISO 178	MPa	650	650	680	460
Hardness	ISO 868	D	68	68	68	/
Impact strength	ISO 180	J/m	800	800	800	Not break
Heat deflection temperature	ISO 75	°C	48	48	48	/
Limiting oxygen index	ASTM D2863	%	43	43	43	95

Packing:20kg/drum or 25kg/drum





9. PVDF film

PF-1 PVDF film be made by our company's patent(China patent no. 201110048732.4), it is the PVDF base nanocomposite, white color and opaque, with high mechanical strength, good thermal stability, low gas/liquids permeability, fire retardant, our PVDF film can effectively separate and absorb ultraviolet, completely sunlight degradation resistance, with excellent chemical resistance and outdoor weather durability.

PF-1 PVDF film mainly used as surface substrate material in the solar back sheet of coating composite technology.

Technical data sheet:

Property	Unit	Standard	Value
Standard specific gravity	g/cm ³	ISO 1183	1.83±0.02
Area coefficient	m ² /kg	-	23±0.5
Film thickness	μm	ISO 4593	25±1
Tensile strength (MD/TD)	MPa	ASTM D882	≥30
			≥30
Elongation (MD/TD)	%	ASTM D882	≥100
			≥50
Shrinkage 150°C*30min	%	ISO 11501	≦ 1.0
Transmission of ultraviolet ray	%	-	<1.0
Breakdown voltage	KV/mm	ASTM D149	≥110
Wet and heat ageing resistance	-	GB/T1 3448	No discoloration, no embrittlement

Packing: paper or plastic axis, PE bag, paper box on pallets, 2000m/roll

Storage: sealing, keep flat, **No erecting, No pressing**

