



PVDF Injection Moulding Grade FTH-211

Characteristic

Physical properties	Specification			ASTM Test standard
	FTH-211A	FTH-211B	FTH-211C	
MFR(g/10min)	10~15	15~20	20~25	ASTM D1238, 230 ⁰ C@5kg
Density(g/cm ³)	1.77~1.79			ASTM D792, @23 ⁰ C
Water absorption (%)	≤0.05			ASTM D570
Mechanical properties				
Tensile strength at break (Mpa)	≥25			ASTM D638 50mm/min@23 ⁰ C
Tensile strength at yield (Mpa)	≥45			
Elongation at break (%)	≥30			
Elongation at yield (%)	≥5			
Hardness(Shore D)	70-80			
Thermal properties				
Melting point(⁰ C)	165~175			ASTM D3418,10 ⁰ C/min

Process safety instructions

- This product should be processed under 370⁰C, to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



PVDF Extrusion Grade FTH-212

Characteristic

Physical properties	Specification	ASTM Test standard
MFR(g/10min)	6~10	ASTM D1238, 230 ⁰ C@5kg
Appearance	White and semi-transparent pellets	/
Density(g/cm ³)	1.75~1.77	ASTM D792, @23 ⁰ C
Water absorption (%)	≤0.05	ASTM D570
Mechanical properties		
Tensile yield strength(Mpa)	≥40	ASTM D638 50mm/min@230C
Yield elongation (%)	5-15	
Tensile strength(Mpa)	≥35	
Elongation at break (%)	≥30	
Hardness(Shore D)	70-80	
Thermal properties		
Melting point(⁰ C)	165~175	ASTM D3418,10 ⁰ C/min

Process safety instructions

- This product should be processed under 370⁰C, to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



PVDF Molding Grade FTH-213

Characteristic

Physical properties	Specification	ASTM Test standard
MFR(g/10min)	1~6	ASTM D1238, 230 ⁰ C@12.5kg
Appearance	White and semi-transparent pellets	/
Density(g/cm ³)	1.77~1.79	ASTM D792, @23 ⁰ C
Water absorption (%)	≤0.05	ASTM D570
Mechanical properties		
Tensile yield strength(Mpa)	≥40	ASTM D638 50mm/min@230C
Yield elongation (%)	5-20	
Tensile strength(Mpa)	≥35	
Elongation at break (%)	≥30	
Hardness(Shore D)	70-80	
Thermal properties		
Melting point(⁰ C)	165~175	ASTM D3418,10 ⁰ C/min

Process safety instructions

- This product should be processed under 370⁰C, to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



PVDF Coating Grade FTH-222

Characteristic

Properties	Specification	ASTM Test standard
MFR(g/10min)	0.5~2.0	ASTM D1238, 230 ⁰ C/10kg
Appearance	White powder	/
Purity (%)	≥99.50	/
Density(g/cm ³)	1.75~1.77	ASTM D792, @23/23 ⁰ C
Scattered fineness(μm)	≤25	Hegman fineness gauge
Water absorption (%)	≤0.1	Karl Fisher
Melting point(⁰ C)	156~165	ASTM D3418,10 ⁰ C/min
Thermal decomposition(⁰ C)	382-393	TGA, 1%Wt.Loss, N2
Crystallizing heat(⁰ C)	140	/
Surface resistivity(Ohm/square)	≥1.10 ¹⁴	ASTM D257/Din 53483
Volume resistivity (Ohm.cme)	≥1.10 ¹⁴	ASTM D257/Din 53483

Process safety instructions

- This product should be processed under 370⁰C ,to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 20kg net weight per bag and then put into drum.
- It must be stored in clean, cool, dry place.



Suspension PVDF Injection Molding FL-2008

Characteristic

Physical Properties	Typical Value	Test Method
Melt Flow Rate (g/10min)	15.0~25.0	230°C/5.0kg, ASTM D1238
Density (g/cc)	1.77~1.79	ASTM D792
Melt viscosity (Kps)	6~9	Shear Rate 100 1/s, ASTM D3835
Water Absorption (%) (Time 24 hr)	≤0.040	ISO 62 (method 1)
Mechanical Properties	Typical Value	Test Method
Yield Strength (Thickness2.00mm) (MPa)	50.0~57.0	50mm/min,ASTM D638
Break Strength (Thickness2.00mm) (MPa)	20.0~50.0	50mm/min,ASTM D638
Elongation at Yield (%)	5.0~10	50mm/min,ASTM D638
Elongation at Break (%)	20~50	50mm/min,ASTM D638
Hardness, Shore D (Thickness2.00mm)	75~80	ASTM D2240
Thermal Properties	Typical Value	Test Method
Melting Point (°C)	171~175	ASTM D3418
Crystallization Temperature (DSC peak) (°C)	134~144	ASTM D3418
Decomposition Temperature (°C)	375	1% wt. loss / in air

Process safety instructions

- This product should be processed under 260°C, to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



Suspension PVDF Extrusion FL-2006

Characteristic

Physical Properties	Typical Value	Test Method
Melt Flow Rate (g/10min)	2.0~8.0	230℃/5.0kg, ASTM D1238
Density (g/cc)	1.77~1.79	ASTM D792
Melt viscosity (Kps)	11~17	Shear Rate 100 1/s, ASTM D3835
Water Absorption (%) (Time 24 hr)	≤0.040	ISO 62 (method 1)
Mechanical Properties	Typical Value	Test Method
Yield Strength (Thickness2.00mm) (MPa)	50.0~57.0	50mm/min,ASTM D638
Break Strength (Thickness2.00mm) (MPa)	20.0~50.0	50mm/min,ASTM D638
Elongation at Yield (%)	5.0~10	50mm/min,ASTM D638
Elongation at Break (%)	20~50	50mm/min,ASTM D638
Hardness, Shore D (Thickness2.00mm)	75~80	ASTM D2240
Thermal Properties	Typical Value	Test Method
Melting Point (℃)	171~175	ASTM D3418
Crystallization Temperature (DSC peak) (℃)	137~144	ASTM D3418
Decomposition Temperature (℃)	375	1% wt. loss / in air

Process safety instructions

- This product should be processed under 260℃,to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



Copolymer PVDF FL-2608

Characteristic

General		
Features	Copolymer, Low viscosity	
Uses	Wire, Cable, film etc.	
Forms	Translucent white particles	
Physical Properties		
Melt Flow Rate (g/10min)	15 ~ 25	Load 5kg, 230°C, ASTM D1238
Density (g/cc)	1.77~1.80	ASTM D792
Water Absorption (%) (Time 24 hr)	≤0.040	ISO 62
Mechanical Properties		
Yield Strength (Thickness2.00mm) (MPa)	25~35	50mm/min,ASTM D638
Break Strength (Thickness2.00mm) (MPa)	20~30	50mm/min,ASTM D638
Elongation at Yield (%)	10~15	50mm/min,ASTM D638
Elongation at Break (%)	200~600	50mm/min,ASTM D638
Hardness, Shore D (Thickness2.00mm)	70~75	ASTM D2240
Thermal Properties		
Melting Point (°C)	169~173	ASTM D3418
Crystallization Temperature(DSC peak) (°C)	137~144	ASTM D3418
Crystallization Heat (J/g)	50~56	ASTM D3417
Heat of Fusion (J/g)	55~66	ASTM D3417

Process safety instructions

- This product should be processed under 260°C, to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



Copolymer PVDF FL-2606

Characteristic

General		
Features	Copolymer, Medium and low viscosity	
Uses	Extruded pipe, Bar, Plate	
Forms	Translucent white particles	
Physical Properties		
Melt Flow Rate (g/10min)	4 ~ 8	Load 5kg, 230°C, ASTM D1238
Density (g/cc)	1.77~1.80	ASTM D792
Water Absorption (%) (Time 24 hr)	≤0.040	ISO 62
Mechanical Properties		
Yield Strength (Thickness2.00mm) (MPa)	30~40	50mm/min,ASTM D638
Break Strength (Thickness2.00mm) (MPa)	20~35	50mm/min,ASTM D638
Elongation at Yield (%))	10~15	50mm/min,ASTM D638
Elongation at Break (%)	200~600	50mm/min,ASTM D638
Hardness, Shore D (Thickness2.00mm)	70~75	ASTM D2240
Thermal Properties		
Melting Point (°C)	158~166	ASTM D3418
Crystallization Temperature(DSC peak) (°C)	115~130	ASTM D3418
Glass Transition Temperature, Tg (°C)	-32	ASTM E1356
Vicat Softening Point (°C)	90~105	ASTM D1525

Process safety instructions

- This product should be processed under 260°C, to avoid producing toxic gases;
- PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds;
- Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

- PVDF is sealed in plastic bag with 25kg net weight per bag and then put into drum or cardboard.
- It must be stored in clean, cool, dry place.



PVDF powder FL-2000

(Li-battery adhesive)

PVDF FL2000 is an ultra high viscosity grade that gives the best adhesion ideal for its usage in lithium batteries.

General		
Features	ultra high viscosity	
Uses	Batteries; Binder	
Forms	White powder	
Physical Properties		
Density (g/cc)	1.77~1.79	ASTM D792
Particle size (μm) (D50)	≤50	ISO 22412
Water Absorption (%) (Time 24 hr)	≤0.040	ISO 62
Molecular properties		
Molecular weight (Da)	750,000~1,200,000	GPC,DMAC,ISO 16014
Intrinsic viscosity (dl/g)	2.5~4.5	30°C,DMAC
molecular weight distribution	1.8-2.3	GPC,DMAC,ISO 16014
Thermal Properties		
Melting Point (°C)	169~173	ASTM D3418
Crystallization Temperature(DSC peak) (°C)	137~144	ASTM D3418
Glass Transition Temp, Tg (°C)	-40	ASTM E1356
Decomposition Temperature (°C)	375	1% wt. loss / in air
Crystallization Heat (J/g)	50.0~56.0	ASTM D3417
Heat of Fusion (J/g)	55.0~66.0	ASTM D3417

Process safety instructions

- 1) This product should be processed under 260°C, to avoid producing toxic gases.
- 2) PVDF has good fire resistance and smoke inhibition property, however, when meets with fire, it will release toxic hydrogen fluoride gas and fluorocarbon compounds.
- 3) Operators should take good care of personal protection during the use procedure and processing.

Packaging and storage

PVDF is packed in PE plastic bag contained in a 25Kg or 50Kg drum. It must be stored in clean, cool, dry place.