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This material has been provided by Matmatch verified supplier **Arkema: High Performance Polymers**

[Polymer](#) > [Thermoplastic](#) > [Fluoropolymer](#) > [Polyvinylidene fluoride \(PVDF\)](#) > **Kynar® 761**

Kynar® 761

**Alternative and trade names**

PVDF

## Description

Kynar® resins are fluorinated thermoplastic homopolymers.

Outstanding characteristics: chemical resistance, imperviousness to UV, high barrier properties, high purity, good mechanical and thermo-mechanical properties.

 This material data has been provided by **Arkema Technical Polymers**.

"Typical" values were obtained via a literature search. "Predicted" values were imputed via artificial intelligence technology. While we have placed significant efforts in ensuring data accuracy, "typical" and "predicted" data should be considered indicative and verified by appropriate material testing. Please do contact us if additional information on the the predicted data method is required.

All metrics apply to room temperature unless otherwise stated. SI units used unless otherwise stated.

Equivalent standards are similar to one or more standards provided by the supplier. Some equivalent standards may be stricter whereas others may be outside the bounds of the original standard.

## Applications

Fluid Systems

Membranes

Fluid Power Systems

Filters

Liquid Separation Membrane

Energy

Batteries

Lithium-Ion Batteries

Rubber & Plastic Industries

Raw Materials For Rubber & Plastics

Auxiliary Materials & Additives For Plastics

# Properties

## General

Property	Value	Testing Standard	Condition	Comment
Coefficient of friction	<a href="#">0.14 [-]</a>	ASTM D1894		vs Steel, Kinetic
	<a href="#">0.2 [-]</a>	ASTM D1894		vs Steel, Static
Density	<a href="#">1.77 - 1.79 g/cm<sup>3</sup></a>	ASTM D792		
Limiting oxygen index	<a href="#">43 %</a>	ISO 4589-1/-2	dry	
	<a href="#">44 %</a>	ASTM D2863		
Water absorption	<a href="#">0.01 - 0.03 %</a>	ASTM D570		
	<a href="#">0.02 %</a>	Sim. to ISO 62		

## Mechanical

Property	Temperature	Value	Testing Standard	Condition	Comment
Compressive strength		<a href="#">68.9 - 103 MPa</a>	ASTM D695		
Elastic modulus		<a href="#">1.4 - 2.3 GPa</a>	ASTM D638		
		<a href="#">2 GPa</a>	ISO 527-1/-2	dry	
Elongation		<a href="#">20 - 100 %</a>	ASTM D638		
		<a href="#">50 %</a>	ISO 527-1/-2	dry	min.   nominal
Elongation at yield		<a href="#">5 - 10 %</a>	ASTM D638		

		<a href="#">9 %</a>	ISO 527-1/-2	dry	
Flexural modulus		<a href="#">1.4 - 2.3 GPa</a>	ASTM D790		
Flexural strength		<a href="#">58.6 - 75.8 MPa</a>	ASTM D790		at 5% strain
Hardness, Shore D		<a href="#">76 - 80 [-]</a>	ASTM D2240		
Impact strength, Charpy notched	23 °C	<a href="#">50 kJ/m<sup>2</sup></a>	ISO 179/1eA	dry	
Impact strength, Charpy notched, ASTM	23 °C	<a href="#">96.1 - 214 J/m</a>	ASTM D256		
Impact strength, Charpy unnotched, ASTM	23 °C	<a href="#">1070 - 4270 J/m</a>	ASTM D256		
Tensile strength		<a href="#">34.5 - 55.2 MPa</a>	ASTM D638		
Yield strength		<a href="#">44.8 - 55.2 MPa</a>	ASTM D638		
		<a href="#">54 MPa</a>	ISO 527-1/-2	dry	

## Thermal

Property	Value	Testing Standard	Condition	Pressure	Comment
Coefficient of thermal expansion	<a href="#">0.000119 - 0.000144 1/K</a>	ASTM D696			
	<a href="#">0.00015 1/K</a>	ISO 11359-1/-2	dry		
Glass transition temperature	<a href="#">-40.6 - -38.3 °C</a>	ASTM D7028			
	<a href="#">-40 °C</a>	ISO 11357-1/-2	dry		10°C/min
	<a href="#">104 °C</a>	ISO 75-1/-2	dry	2 MPa	

**Heat deflection temperature**

<a href="#">105 - 115 °C</a>	ASTM D648	2 MPa	248 °F/hr
<a href="#">125 - 140 °C</a>	ASTM D648	0.45 MPa	248 °F/hr

**Melting point**

<a href="#">165 - 172 °C</a>	ASTM D3418		
<a href="#">170 °C</a>	ISO 11357-1/-3	dry	10°C/min

**Relative temperature index, electrical**

<a href="#">150 °C</a>	UL 746B
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**Relative temperature index, mechanical strength**

<a href="#">150 °C</a>	UL 746B
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**Specific heat capacity**

<a href="#">745 - 958 J/(kg·K)</a>	DSC
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**Thermal conductivity**

<a href="#">0.17 - 0.19 W/(m·K)</a>	ASTM D433
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**Thermal decomposition in air**

<a href="#">375 °C</a>	TGA	1% wt. loss
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**Thermal decomposition in nitrogen**

<a href="#">410 °C</a>	TGA	1% wt. loss
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**Flammability**

At thickness 1.6 mm IEC 60695-11-10: V-0, At thickness 0.8 mm IEC 60695-11-10: V-0 and yellow card available

## Electrical

Property	Value	Frequency	Testing Standard	Condition
Dielectric constant	<a href="#">4.5 - 9.5 [-]</a>	1KHz	ASTM D150	
Dissipation factor	<a href="#">0.01 - 0.21 [-]</a>	100KHz	ASTM D150	

Volume resistivity

[2e+14 Ω·cm](#)

ASTM D257

65% RH

## Optical

Property	Value	Testing Standard	Comment
Refractive index	<a href="#">1 [-]</a>	ASTM D542	sodium D line

## Rheological Properties

Property	Value	Testing Standard	Condition	Comment
Density of melt	<a href="#">1.78 g/cm<sup>3</sup></a>			
Melt mass-flow rate	<a href="#">2 - 6 g/10min</a>	ASTM D1238		230°C/12.5kg
Melt viscosity	<a href="#">2300 - 2900 Pa·s</a>	ASTM D3835		
Melt volume-flow rate	<a href="#">1.3 cm<sup>3</sup>/10min</a>	ISO 1133	dry	230°C/10kg
Shrinkage	<a href="#">3 %</a>	ISO 294-4	dry	
	<a href="#">3 %</a>	ISO 294-4	dry	Transverse
Thermal conductivity of melt	<a href="#">0.19 W/(m·K)</a>			

## Technological properties

Property	
Application areas	Biopharma Membranes,Fluoropolymer Processing Aids,Lithium Ion Battery Binder,Water Filtration Membrane
Certifications	Yellow Card