

Saint-Gobain Performance Plastics
Sani-Pro-K Kynar®, Design Properties for Kynar Resins

	Method	Units	Typical Values or Ranges ⁽¹⁾					
			Kynar		Kynar Flex		Kynar	
			460	700 ⁽²⁾	2800	2850	320 ⁽³⁾	370 ⁽³⁾
Physical Properties	ASTM D3418	°F	320	329-338	285-293	311-320	320-338	329-338
Melting Point Range		°C	160	165-170	141-145	155-160	160-170	165-170
Specific Gravity			1.75-1.77	1.77-1.79	1.77-1.79	1.76-1.78	1.84-1.86	1.84-1.88
Refractive Index	ASTM D542	n _{25D}	1.42	1.42	1.41	1.42	NA	NA
Water Absorption	ASTM D570	%	.04	.01-.03	.03	.04	.05	.05
Mechanical Properties	ASTM D638	psi	5000-6500	6000-8000	2900-3900	4500-5500	None	None
Tensile Strength at Yield								
Tensile Strength at Break	ASTM D638	psi	4500-7000	5000-6500	3500-6000	4000-6000	5500-7500	5500-8000
Elongation at Yield	ASTM D638	%	8-15	7-13	10-20	10-20	None	None
Elongation at Break	ASTM D638	%	50-250	50-250	200-450	300-400	15-50	4-20
Tensile Modulus	ASTM D882	psi	150-200x10 ³	200-300x10 ³	80-130x10 ³	110-140x10 ³	NA	450-750x10 ³
Flexural Modulus	ASTM D790	psi	165-260x10 ³	200-325x10 ³	90-120x10 ³	160-80x10 ³	350-370x10 ³	NA
Impact Strength at Room Temperature	ASTM D256	ft-lb/in	15-40	20-80	No Break	No Break	6-8	5-10
Unnotched								
Notched								
Hardness	ASTM D2240	Shore D	75-80	76-80	65-70	70	74-79	74-79
Tabor Abrasion Wheel	CS-17 1000g	mg/1000 Cycles	7.0-9.0	5.0-9.0				
Thermal Properties								
Limiting Oxygen Index	ASTM D2863	%	43	43	42/88 ⁽⁴⁾	42/88 ⁽⁵⁾	44	44
Vertical Burn	UL Bulletin 94		V-O	V-O	V-O	V-O	V-O	V-O

Table I: General property profile of Kynar Fluoropolymers

- (1) Typical property values; not to be construed as sales specifications.
- (2) The Kynar 700 PVDF series spans a wide range of viscosities. Please consult an Elf Atochem North America representative for typical values on specific grades.
- (3) Filled with graphite to reduce mold shrinkage.
- (4) Optional product available is Kynar Flex 2900 resin that has an LOI of greater than 75.
- (5) Optional product available that has an LOI of greater than 75.