

KYNAR Polyvinylidene Fluoride (PVDF), the homopolymer of 1,1-difluoroethylene, is a tough engineering thermoplastic that offers a unique balance of performance properties. The unique structure of alternating units of methylene and difluoromethylene, create a polymer with high crystallinity combined with a high polarity, resulting in a sharp melting point. It has the characteristic stability of fluoropolymers while retaining the properties of a conventional thermoplastic material. ® KYNAR FLEX resins are a series of PVDF based copolymers, similar to KYNAR® homopolymer resins in purity and chemical resistance, but having additional chemical compatibility in high pH solutions, increased impact strength at ambient and low temperatures, and increased clarity.

KYNAR® PVDF has outstanding barrier properties which allows a better protection of the environment. The construction of chemical process equipment makes use of a multitude of materials to cope with specific corrosion problems KYNAR® PVDF has the advantage of absolute suppression of corrosion, even under varying process conditions, when compared to stainless steel.

Key Features:-

- Mechanical strength & toughness
- High thermal stability
- High dielectric strength
- Readily melt processable
- Exceptional outdoor weather resistance
- Low permeability to most gases and liquids
- Low flame and smoke characteristics
- High abrasion resistance
- Very low creep
- High purity
- Resistance to most chemicals and solvents
- Resistance to nuclear radiation
- Resistance to fungi
- Very smooth surfaces can be obtained

Standards

ISO 10931 / Liner Pipes / ASTM Sch 40 / ASTM Sch 80/
DIN 16962 / DIN 2501 / ANSI 16.5 /
Custom Sizing



Typical Applications:-

- Process Industry
- Sugar Industry
- High purity applications
- Paper & pulp Industry
- Electronic, electrical & semi-conductors industry
- Nuclear power industry
- Pharmaceutical Industry
- Automotive Industry
- Solar power panels
- DI water plants

Technical Details:

Pipe - Grades	Range (in mm Ø)
PVDF Kynar 740	20 - 200
PVDF Kynar 2850	16 - 160 Liner Pipes
ASTM	1/2" - 4"
Other	Special Black colored pipe

Range (in mm Ø)

Fittings Grade	Socket Fusion	Butt Fusion
Elbows 90°	20-90	20-60
Elbows 45°	20-90	-
Tees, End Caps, Conc / Ecc Reducers	20-90	20-180
Adaptors	20-90	20-200
Backing Flanges	20-90	20-225
Flanges w/ Steel core	20-225	20-225
Couplers / Sockets	20-200	
Unions	20-90	

Typical Properties

Properties	Test Method	Unit	Value		
			PVDF 720	PVDF 740	PVDF 1000 HD
Specific gravity (ρ)	ISO 1183	g/cm ³	1.78	1.78	1.77
Water saturation	ISO 15512	%	0.03	<0.04	0.03
Max. permissible service temperature		°C	140	140	140
Lower permissible service temperature		°C	-30	-30	-30
Tensile strength at yield	ISO 527	Mpa	52	48	50
Tensile strength at break	ISO 527	Mpa	34-55	41	50
Elongation at yield	ISO 527	%	5-10	7.5	9
Elongation at break	ISO 527	%	≥50	130	≥50
Notch impact strength	ISO 179	KJ/m ²	5	3	5
Modulus of elasticity	ISO 899	Mpa	2200	1800	2000
Vicat Softening Temperature	ISO 306	°C	139	135	138
Heat deflection temperature	at 0.46 MPa (66 psi)	°C	125-140	105	104

N.B.: Technical data refers to average values. The information provided above is based on the values measured in our laboratory as well as independent laboratories. The quoted values are based on specific resin properties and are subject to change without prior notice.

For further details on the product, kindly contact us at :

e-mail: emarketing@sangir.com / sales@sangir.com

Tel: +91 022 28717800 (30 lines)