KYNAR®

TECHNICAL DATA SHEET

KYNAR® 370

FLUORINATED HOMOPOLYMER PELLET

KYNAR® resins are fluorinated thermoplastic homopolymers. The properties are the same as standard grade: chemical resistance, resistance to UV, low permeation, high purity, excellent mechanical behavior with a higher HDT This grade is especially modified in order to have a reduced mold shrinkage, low thermal expansion factor Moreover, this grade has an increased thermal and electrical conductivity This grade is available as pellet form for injection, extrusion, compression

TYPE

PVDF

MAIN APPLICATIONS

- molding

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (446°F) at 100 s-1	8 - 13	kPo	ASTM D3835
Shrinkage, normal (t+24h)	0.7	%	ISO 294-4
Shrinkage, parallel (t+24h)	0.7	%	ISO 294-4
Melt flow index (MFR), 230°C / 3.8 kg (446°F / 8.3 lb)	5 - 17	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 3.8 kg (446°F / 8.3 lb)	5.8	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F)	4135	MPa	ASTM D638
Yield stress, 23°C (73°F)	34.5 - 55.2	MPa	ASTM D638
Yield strain, 23°C (73°F)	0 - 4	%	ASTM D638
Stress at break, 23°C (73°F)	37.9 - 55.2	MPa	ASTM D638
Flexural modulus, 23°C (73°F)	5520 - 6890	MPa	ASTM D790
Compression strength, 23°C (73°F)	138 - 172	MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	0.267 - 0.534	kJ/m2	ASTM D256
Izod impact notched strength, 23°C (73°F)	0.04 - 0.0801	J/m	ASTM D256
Hardness, shore D	74 - 79		ASTM D2240
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.12		ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.18		ASTM D1894

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THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Limiting oxygen index (LOI)	44	%	ASTM D2863
Coefficient of linear thermal expansion, 23°C (73°F)	36 - 45	10E-6 / °K	ASTM D696
Heat deflection temperature, 1.8 MPa	120	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	110 - 127	°C	ASTM D648
Heat deflection temperature, 0.45 MPa, 138°C/h	132-149	°C	ASTM D648
Melting temperature, 10°C/min	170	°C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	28.8 - 33.5		ASTM D150
Relative permittivity, 100Hz	33		IEC 62631-2-1
Dissipation factor, 100Hz	610	E-4	IEC 62631-2-1
Dissipation factor	0.06 - 0.08		ASTM D150

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.84 - 1.88	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	0.02	%	ISO 62

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 180°C / 210°C / 240°C (355°F / 410°F / 465°F)
- Typical mold temperature - Injection molding: 20-80°C (70-175°F)

SPECIAL CHARACTERISTICS

- Flame & smoke

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