

Piezotech® Polymer Range

Product name	Piezoelectric				Electrostrictive and High-k			
	Method	Piezotech® FC				Piezotech® RT		
Polymer base		P(VDF-TrFE) Copolymer				P(VDF-TrFE-CTFE/CFE) Terpolymer		
Grade		FC 20	FC 25	FC 30	FC 45	RT-TS	RT-FS	
		Composition (mol%)						
			% TrFE			% CTFE % CFE		
	¹ H & ¹⁹ F NMR	20	25	30	45	Standard Composition		
		Indicative Thermal Properties						
Melting Point (°C)	Second heating by DSC	150	150	151	158	122	127	
Curie Transition (°C)	ASTM D3418	136	115	100	60	-	-	
		Indicative Molar Mass						
Mw (kg.mol ⁻¹)	SEC in DMSO PMMA eq		450			500		
MFI	ASTM D1238 230°C under 10 kg		1-6					
		Indicative Dielectric Properties						
ϵ_r	Capacity measurement at 1 kHz	9 - 12		10 - 14		40	55	
Saturation Polarization (mC.m ⁻²)		-	-	-	-	55	60	
Remnant Polarization (mC.m ⁻²)	At 150 V.µm ⁻¹	85	70	65	45	-	-	
Coercive Field (V.µm ⁻¹)		45	50	50	55	-	-	
		Indicative Piezoelectric / Pyroelectric Properties						
d ₃₃ (pC.N ⁻¹)	Piezotest PM300 1 N, 110 Hz	-24 to -30		-18 to -22		-	-	
Typical P3 (µC/m ² /K)	Literature	-30		-50		-	-	
		Indicative Mechanical Properties						
Storage Modulus E' (GPa)	ASTM D638		0.8 - 2.8			0.2 - 0.4		
		Indicative Optical Properties						
Transmittance (%)	ASTM D1003		>96%			>99%		

Specific product composition or MFI are available on demand. Do not hesitate to ask us.

Typical properties are only given as indicative values, not specifications.
Electroactive performances strongly depend on processing and operating conditions.

Piezotech[®] FC and RT Ink Range

Grade	Technology	Viscosity (mPa.s at 32 °C)	Thickness Range (µm)	Indicative Dry Content (wt%)
Ink I	Ink-jet	< 20	0.05 - 2	0.6
Ink L	Spin-coating Slot-die	< 1000	0.1 - 2	7
Ink H	Spin-coating Solvent-casting	1500-3000	Spin-coat: 0.5 – 2 Solvent-cast: 2 - 80	20
Ink P	Screen-printing	12000-24000	1 - 20	17.5

Specific ink formulations could be developed to fit your printing process. Do not hesitate to ask us.

Typical Properties

Ink Name	Piezotech [®] FC Ink	Piezotech [®] RT Ink
	Pyro/Piezoelectric	Electrostrictive and High-k
Base Polymer	Piezotech [®] FC 20	Piezotech [®] RT-TS
Melting Temp. range(°C)	148 - 151	115 - 130
Annealing Temp. (°C)	140 - 145	105 - 120
Curie Temp. range(°C)	128 - 140	-

Contact Information

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