PIEZOTECH ARKEMA GROUP

PIEZOTECH S.A.S

PIEZO-PYRO AND RELAXOR POLYMERS

Piezotech™ Polymers Range

Typical Physical properties

	Grade							Method
	FC 20	FC 25	FC 30	FC 45	FC 50	RT TS	RT FS	
	Composition							
	% TrFE					%CTFE	%CFE	
	20	25	30	45	50	9	8	1H & 19 F NMR
	Thermal properties							
Melting T range (°C)	148 - 152	148 - 152	149 - 153	156 - 160	158 - 163	115 - 130	124 - 130	DSC (10 mg) Second heat 10°C/min
Curie T (°C)	131 - 141	112 - 123	96 - 106	57 - 62	58 - 63	-	-	
Typical Annealing T (°C)	135	135	135	145	145	105 - 120	114 - 120	
C_p (J/g/K)				1,3				at 20°C
C_{pv} (J/cm^3/K)				2,3				
	Molar mass characteristics							
Mw range (10^3 g/mol)	400 - 530	370 - 530	380 - 540	350 - 550	350 - 550	410 - 575	425 - 625	SEC Chromatography - Solvent DMF - Refractometric detection - PS standard
	Dielectric Properties							
ε_r	10 - 12			11 - 15		40	55	Capacity measurement at 1kHz

*** Constants are given as indicative value, it depends strongly on processing conditions (annealing & poling) and on temperature**

January 2016