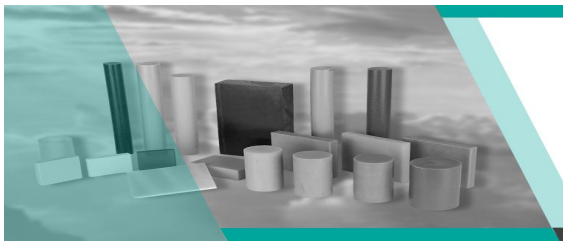

TYPICAL PROPERTIES DATA SHEET

Hony Engineering Plastics Limited

HONYFLUO®PCTFE Properties Data Sheet

①Raw material description			
Standard Grade:	Mold processing grade	**Appearance color:**	Natural
Application:	Processing materials,sheet,rod,tube.Mainly used for chemical compoents,pump,valve,pipe,pipeline fittings,storage bunker,heat exchanger,electric wire,seal ring etc..		
Remarks:	Charactors: chemical stability,dielectrical property, radiation resistance,superior mechanical property,cold-resisting mobility,abrasion resistance,dimensional stability,good adhesive property with metal.		

②Raw material technical datasheet				
Property item	**Test conditions**	**Testing method**	**Testing data**	**Unit**
I.Physical property				
Density	---	ASTM D792	2.10~2.14	g/cm^3
Shrinkage	---	ASTM D955	0.015～0.020	cm/cm
Water absorption	24h,1/3''t	ASTM D570	＜0.00	%
Flammability class	---	UL94	V0	Class
Ⅱ.Mechanical property				
Tensile strength	23°C	ASTM D638	31~41	MPa
	23°C	ASTM D638	1029~2058	MPa
Tensile yield strength	---	ASTM D638	≥35	MPa
Elongation	23°C	ASTM D638	80~250	%
Flexural strength	23°C	ASTM D790	67~74	MPa
Compressive strength	1%transformation, 25°C	ASTM D695	9~12	MPa
Compression modulus	23°C	ASTM D695	1200~1500	MPa
Flexural modulus	26°C	ASTM D790	1274~1764	MPa
Bearing and deformation	100°C 6.8MPa,24h	ASTM D621	2.6	%
	25°C 13.7MPa,25h	ASTM D621	0.2	%
Hardness-Shore D	Sclerometer	ASTM D2240	80	D
Cantilever beam impact strength (unnotched)	23°C	ASTM D256	133~144	J/m
Cantilever beam impact strength (notched)	23°C	ASTM D256	10.5	kJ/m^2
Coefficient of friction	rub with steel	ASTM D1894	0.008	---
Ⅲ.Thermal property				
Loss of strong temperature	---	---	240~320	℃
Max. working temperature(short time)	---	UL746B	150	℃
Max. working temperature(long time)	20000h	UL746B	120	℃
Melting temperature	---	ASTM D2133	210-212	℃
Brittle temperature	---	ASTM D746	-240	℃
Thermal conductivity	---	ASTM C177	0.2-0.22	W/(cm*K)
Coefficient linear thermal expansion	23~60°C	ASTM D696	（4.5-7.0）*10^{-5}	1/°C
Ⅳ.Electrical property				
Dielectric constant	---	ASTM D150	2.3~2.8	10^6Hz
Dielectric loss angle tangent	---	ASTM D150	≤0.01	10^6Hz

Disruptive strength	short time, 0.1MM	ASTM D149	12	KV
Dielectric strength	---	ASTM D149	≥15	MV/M
Volume resistance	---	ASTM D257	10^{18}	(Ω) * cm
Surface resistance	100%RH	ASTM D257	10^{15}	(Ω)
Electroc arc resistance	---	ASTM D495	＞360	---
NOTE:1 g/cm^3 = 1,000 kg/m^3, 1 Mpa = 1 N/mm^2, 1kV/mm = 1 MV/m				