

GENERAL SUMMARY OF PROPERTIES

	Fluoropolymers						Thermoplastic Polymers									Thermoplastic Elastomers		
	Thermoplastic Fluoropolymers						Polyolefines			Polyamides			POM	PET / PBT	PC	TPE-U	TPE-A	TPE-E
	PTFE	FEP	PFA	ETFE	PVDF	LDPE	HDPE	PP	PA 6	PA 11	PA 12							
Tensile strength at break,	MPa	20 - 34	20 - 28	25 - 30	40 - 47	35 - 50	10 - 18	25 - 45	20 - 460	35 - 80	40 - 90	40 - 90	40 - 70	30 - 50	70	25 - 70	30 - 62	14 - 45
Elongation at break	%	200 - 400	300	300	230	15 - 50	350 - 700	50 - 1000	10 - 500	40 - 300	30 - 400	50 - 400	10 - 200	20 - 350	50 - 120	160 - 7500	50 - 700	200 - 800
Flexural modulus	MPa	275 - 620	550 - 700	590 - 700	1200	2100	100 - 600	500 - 1500	900 - 2000	500 - 2900	400-1400	260 - 1600	1400 - 3000	1000 - 2400	2300	70 - 2300	15 - 730	40 - 1200
Hardness	Shore D	55 - 65	55 - 60	55 - 64	63 - 75	75 - 78	49 - 55	58 - 65	72 - 81	70	72	72	85	55 - 65	90	40 - 75	25 - 72	35 - 80
Density	g/cm ³	2,2	2,15	2,15	1,7	1,8	0,91 - 0,94	0,94 - 0,96	0,90 - 0,91	1,03 - 1,17	1,0 - 1,05	1,0 - 1,17	1,3 - 1,4	1,2 - 1,3	1,20	1,05 - 1,20	0,96 - 1,10	1,12 - 1,27
Coefficient of friction		0,10	0,25	0,21	0,23	0,30	0,60	0,28	0,30	0,40	0,35	0,35	0,30	0,22 / 0,5	0,55	0,2 - 0,8		
Transparency	See note	***	****	*****	***	*	****	***	***	**	***	***	*	*****	*****	****	****	**
Melting point	°C	330	257 - 275	300 - 310	270	175	110	125	134 - 165	220	175 - 190	170 - 185	160 - 175	230/250	240	170 - 240	135 - 175	160 - 215
Min. Service temp.	°C	-200	-200	-200	-190	-60	-30	-20	-10	-40	-60	-60	-40	-40	- 40	-50	-40	-40
Max. Service temp.	°C	+260	+200	+260	+150	+150	+80	+100	+120	+150	+100	+100	+100	+140	+120	+80	+130	+130
Water absorption	%	<0,01	0,004	< 0,03	0,02	<0,04	0,01	0,01	0,01	1 - 10	0,2 - 2,0	0,2 - 1,6	0,2 - 1	0,1 - 0,5	0,3	0,1 - 0,4	0,9 - 1,2	0,6 - 2,5
Chemical resistance	See note	*****	****	*****	****	****	***	***	****	**	**	**	***	****	*	***	***	***
Sterilisation,	ETO	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Steam	X	X	X	X	X	-	-	X	X	X	X	X	-	-	-	X	X
	Radiation	-	-	-	X	X	X	X	(X)	X	X	X	(X)	X	X	X	X	X

Note: excellent - ***** poor - *

The property data are taken from different sources and are not necessarily typical for any specific grade. This table is unsuitable for specification, since all values are indicative and for guidance only. Optinova Ab takes no responsibility for data given in the table.