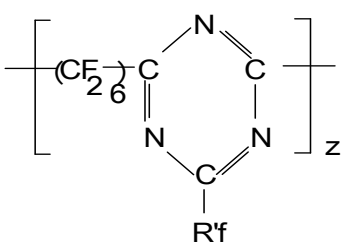
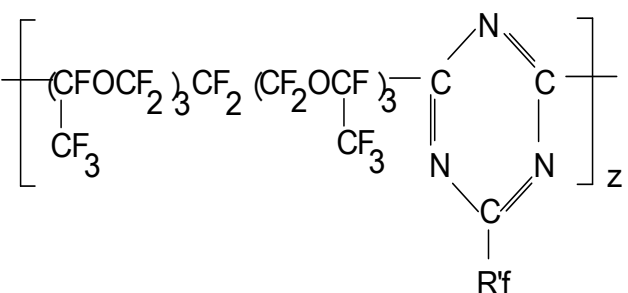


Table 10. Calculated and experimental  $T_c$  in oxygen-containing fluoropolymers

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
	<p>1.</p> 		
1	CF <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> OCF <sub>2</sub> –	222.5	–
2	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> –	214	–
3	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> –	208.5	204
4	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> –	204	–
5	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> –	200.5	–
6	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> –	198	–
7	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>7</sub> CF <sub>2</sub> –	195.5	–
8	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>8</sub> CF <sub>2</sub> –	194	–
	<p>2.</p> 		
9	CF <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> OCF <sub>2</sub> –	221	–
10	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> –	217	216
11	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> –	213.5	–
12	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> –	210.5	–

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
13	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> –	208	–
14	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> –	206	–
15	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>7</sub> CF <sub>2</sub> –	204	–
16	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>8</sub> CF <sub>2</sub> –	202	–
	3. –(CH <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF(R'f)CF <sub>2</sub> ) <sub>z</sub> –*		
17	CF <sub>3</sub> O–	231	233
18	CF <sub>3</sub> CF <sub>2</sub> O–	238.5	246
19	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> O–	243.5	240
20	CF <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> O–	223	223
21	CF <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> O–	216.5	232
22	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>2</sub> –	208	213
23	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>3</sub> –	202.5	203
24	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>4</sub> –	198.5	194
25	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>5</sub> –	195.5	–
26	CF <sub>3</sub> O(CF <sub>2</sub> CF <sub>2</sub> O) <sub>6</sub> –	193	–
27	CF <sub>3</sub> CF <sub>2</sub> OCF <sub>2</sub> CF <sub>2</sub> O–	223.5	230
28	CF <sub>3</sub> OCF <sub>2</sub> OCF <sub>2</sub> CF <sub>2</sub> O–	199	208**
29	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> O–	186	199
30	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> O–	176	178
31	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> CF <sub>2</sub> O–	168	161
32	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> CF <sub>2</sub> O–	162	–
33	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> CF <sub>2</sub> O–	156.5	–
34	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> OCF(CF <sub>3</sub> )CF <sub>2</sub> O–	233	235**
35	CF <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> OCF(CF <sub>3</sub> )CF <sub>2</sub> O–	218.5	218**
36	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> OCF <sub>2</sub> –	245.7	–

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
	4. -(CH <sub>2</sub> CF <sub>2</sub> CF(R'f)CF <sub>2</sub> ) <sub>z</sub> -***		
37	CF <sub>3</sub> OCF <sub>2</sub> OCF <sub>2</sub> CF <sub>2</sub> O-	178 (188.5)	-
38	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> O-	165 (174)	-
39	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> O-	156 (163)	-
40	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> CF <sub>2</sub> O-	149.5 (155)	-
41	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> CF <sub>2</sub> O-	144 (150)	-
42	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> CF <sub>2</sub> O-	140 (144.5)	-
43	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> CF <sub>2</sub> CF <sub>2</sub> O-	136.5(140.5)	-
	5. -(CH <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>2</sub> CF(R'f)CF <sub>2</sub> ) <sub>z</sub> -		
44	CF <sub>3</sub> OCF <sub>2</sub> O-	206	-
45	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> -	189	-
46	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> -	176.5	-
47	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> -	167.5	-
48	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> -	160	-
49	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> -	154.5	-
50	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> -	149.5	-
	6. -(CH <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>2</sub> C(R'f,R'f)CF <sub>2</sub> ) <sub>z</sub> -		
51	CF <sub>3</sub> O-	211	-
52	CF <sub>3</sub> O(CF <sub>2</sub> ) <sub>3</sub> O-	208.5	-
53	CF <sub>3</sub> OCF <sub>2</sub> O-	180	-
54	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> -	163	-
55	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> -	151.5	-
56	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> -	144	-

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
57	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> -	138	-
58	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> -	134	-
59	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> -	130.5	-
	7.		
	-(CF <sub>2</sub> CF <sub>2</sub> CF(R'f)CF <sub>2</sub> ) <sub>z</sub> -		
60	CF <sub>3</sub> O-	249	254
61	CF <sub>3</sub> O(CF <sub>2</sub> ) <sub>3</sub> O-	231	225**
62	CF <sub>3</sub> OCF <sub>2</sub> OCF <sub>2</sub> CF <sub>2</sub> O-	198.5	-
63	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> O-	182.5	-
64	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> O-	170.5	-
65	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> CF <sub>2</sub> O-	162	-
66	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> CF <sub>2</sub> O-	155	-
67	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> CF <sub>2</sub> O-	150	-
68	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> CF <sub>2</sub> CF <sub>2</sub> O-	145.5	-
	8.		
	-(CF <sub>2</sub> CF(R'f)) <sub>z</sub> -		
69	CF <sub>3</sub> O-	235	246**
70	CF <sub>3</sub> O(CF <sub>2</sub> ) <sub>3</sub> O-	219	217**
71	CF <sub>3</sub> OCF <sub>2</sub> OCF <sub>2</sub> CF <sub>2</sub> O-	181	-
72	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> O-	165.5	-
73	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> O-	155	-
74	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> CF <sub>2</sub> O-	147	-
75	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> CF <sub>2</sub> O-	141.5	-
76	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> CF <sub>2</sub> O-	137	-
77	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> CF <sub>2</sub> CF <sub>2</sub> O-	133.5	-
	9.		

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
	$-(CF(R'f)CF_2O)_z-$		
78	$CF_3O(CF_2)_3-$	199.5	—
79	$CF_3OCF_2O(CF_2)_3-$	178.5	—
80	$CF_3O(CF_2O)_2(CF_2)_3-$	165	—
81	$CF_3O(CF_2O)_3(CF_2)_3-$	155	—
82	$CF_3O(CF_2O)_4(CF_2)_3-$	148	—
83	$CF_3O(CF_2O)_5(CF_2)_3-$	143	—
84	$CF_3O(CF_2O)_6(CF_2)_3-$	138.5	—
85	$CF_3O(CF_2O)_7(CF_2)_3-$	135	—
	10.		
	$-((CF_2CF(R'f)O)_4CF_2O)_z-$		
86	$CF_3-$	193	—
87	$CF_3OCF_2CF_2CF_2O-$	174	169
88	$CF_3OCF_2OCF_2CF_2O-$	148	—
89	$CF_3O(CF_2O)_2CF_2CF_2O-$	140	—
90	$CF_3O(CF_2O)_3CF_2CF_2O-$	134.5	138**
91	$CF_3O(CF_2O)_4CF_2CF_2O-$	131	—
92	$CF_3O(CF_2O)_5CF_2CF_2O-$	127	—
93	$CF_3O(CF_2O)_6CF_2CF_2O-$	125	—
94	$CF_3O(CF_2O)_7CF_2CF_2O-$	123	—
	11.		
	$-(Si(CH_3,R'f)O)_z-$		
95	$CF_3(CF_2)_2O(CF_2)_2(CH_2)_2-$	186	182
96	$CF_3(CF_2)_2OCF(CF_3)(CH_2)_2-$	186	184
97	$CF_3CH_2CH_2-$	195.5	200
98	$CF_3OCF_2O(CF_2)_2(CH_2)_2-$	150	—

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
99	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	142	-
100	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	136.5	138**
101	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	132	-
102	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	129	-
103	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	126	-
104	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	124	-
	12.		
	-(Si(R'f,R'f)O) <sub>z</sub> -		
105	CF <sub>3</sub> OCF <sub>2</sub> O(CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	159	-
106	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	147.5	-
107	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	140.5	-
108	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	135	-
109	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	131	-
110	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	127.5	-
111	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> (CF <sub>2</sub> ) <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> -	125	-
	13.		
	-(P(R'f,R'f)=N) <sub>z</sub> -		
112	CF <sub>3</sub> CH <sub>2</sub> O-	217.2	207.2
113	CF <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> O-	175.7	174.2
114	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>2</sub> CF <sub>2</sub> CH <sub>2</sub> O-	131.2	132.2
115	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>3</sub> CF <sub>2</sub> CH <sub>2</sub> O-	134.2	135.2
116	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>4</sub> CF <sub>2</sub> CH <sub>2</sub> O-	119.2	119.2
117	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>5</sub> CF <sub>2</sub> CH <sub>2</sub> O-	122.7	123.2
118	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>6</sub> CF <sub>2</sub> CH <sub>2</sub> O-	112.7	-

№	R'f	$T_c$ (K) calculated	$T_c$ (K) experimental
119	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>7</sub> CF <sub>2</sub> CH <sub>2</sub> O–	116.2	–
120	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>8</sub> CF <sub>2</sub> CH <sub>2</sub> O–	111.2	–
121	CF <sub>3</sub> O(CF <sub>2</sub> O) <sub>9</sub> CF <sub>2</sub> CH <sub>2</sub> O–	112.2	–

\* Some difference between experimental and calculated  $T_c$  values may be assigned to non-conformity of the tested co-polymer composition with that specified

\*\* Data provided by FSUE NIISK

\*\*\*  $T_c$  in brackets were calculated taking into account the impact of hydrogen bonding

\*\*\*\*  $T_c$ , calculated taking into account the different impact of hydrogen bonding.