

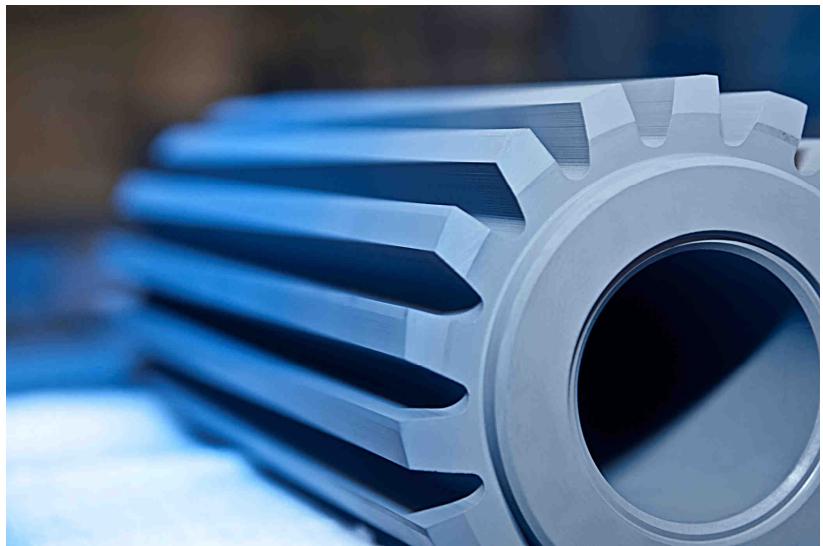


**traid villarrocha,
hnos. s.l.**



TKG®FLON

PTFE



TRAID VILLARROYA manufactures a complete special range of TKG®FLON (PTFE) semi-finished formats and finished parts including rods, plates, tubes, thin sheets, rolls and many more. There is an emphasis on increasing the uses of various of our plastics. Our materials operate in many varied and often challenging applications. An unwavering commitment has always been maintained to the highest standards of the quality, as well as for the protection of the environment in the communities in which we live and work. The long-term business success of our products depends on our ability to ensure that our quality remains a top priority for the management and each employee. This idea is our commitment to making sustainable health a reality through innovative technology and services focused on addressing three critical needs: lowering costs, helping our customers and improving quality.



All our TKG®FLON materials have been tested, approved and can be easily certified to meet the requirements. We provide complete lot and batch traceability as well as documented certification to exceed your needs. And with our full commitment to quality and ISO 9001:2008 certification you can count on us.

Our company is built around two core assets, its brands and its people. That's what makes working here so special. We believe that work is more than a place you go every day. It should be a place of exploration, creativity, professional growth and interpersonal relationships. It's about being inspired and motivated to achieve extraordinary things. We want our people to take pride in their work and in building brands others love. After all, it's the combined talents, skills, knowledge, experience and passion of our people. that makes us who we are.

Our products offers the broadest range of materials, sizes, formats and services available, from exploration and appraisal of new applications through development and production. We place strong emphasis on developing innovative technology that adds value for our customers. Precision and effort are as much a part of TRAID's operational policy as they are an integral part of each worker. The manufacturing system is also designed to promptly handle special orders and quick turn-around, providing customers with an endless supply of first-class products.



Please find our standard delivery programme...

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TKG®FLON EXTRUDED RODS

Finished size mm. Ø	Tolerance mm. Ø	Delivery weight Kg/m.
6	-0 / +0.3	0,066
7	-0 / +0.3	0,090
8	-0 / +0.3	0,114
10	-0 / +0.3	0,173
12	-0 / +0.4	0,270
15	-0 / +0.4	0,420
16	-0 / +0.4	0,462
17	-0 / +0.4	0,525
20	-0 / +0.4	0,722
25	-0 / +1.2	1,150
30	-0 / +1.2	1,600
35	-0 / +1.6	2,200
40	-0 / +1.6	2,850
45	-0 / +2.0	3,690
50	-0 / +2.0	4,650
55	-0 / +2.4	5,500
60	-0 / +2.4	6,500
65	-0 / +2.8	7,310
70	-0 / +2.8	8,800
75	-0 / +3.2	10,000
80	-0 / +3.2	11,000
85	-0 / +3.6	12,400
90	-0 / +3.6	14,700
95	-0 / +4.0	16,500
100	-0 / +4.0	18,000
110	-0 / +5.0	22,100
120	-0 / +5.0	25,500
130	-0 / +5.0	29,200
140	-0 / +5.0	33,900
150	-0 / +5.0	38,900
160	-0 / +6.0	44,200
170	-0 / +6.0	51,070
180	-0 / +6.0	57,256
200	-0 / +6.0	70,685

Standard lengths: 2000 mm. / 1000 mm.

Cutted dimensions and special lengths are also available upon request.

TKG®FLON MOULDED RODS

Finished size mm. Ø	Tolerance mm. Ø	Delivery weight gr/mm.
205	As ordered	80,700
210	As ordered	85,200
215	As ordered	89,900
220	As ordered	93,800
230	As ordered	100,800
235	As ordered	104,600
240	As ordered	109,300
250	As ordered	119,500
255	As ordered	124,900
260	As ordered	129,600
265	As ordered	134,400
270	As ordered	139,200
280	As ordered	149,200
285	As ordered	156,100
290	As ordered	162,100
300	As ordered	170,100
310	As ordered	181,000
315	As ordered	186,100
320	As ordered	194,600
330	As ordered	210,000
335	As ordered	218,500
340	As ordered	222,200
345	As ordered	227,000
350	As ordered	238,000
365	As ordered	257,000
380	As ordered	280,200
395	As ordered	298,600
400	As ordered	315,100
410	As ordered	320,600
420	As ordered	349,200
435	As ordered	366,900
450	As ordered	389,600
460	As ordered	407,800
475	As ordered	433,500
485	As ordered	451,000
500	As ordered	477,900
525	As ordered	534,100
540	As ordered	563,300
560	As ordered	591,300
590	As ordered	666,500
610	As ordered	710,200
620	As ordered	743,900
640	As ordered	778,300
690	As ordered	880,000
710	As ordered	962,300
720	As ordered	1001,500
760	As ordered	1070,000
775	As ordered	1120,000

Standard lengths: 300 mm. up to Ø 410 mm. / 80 mm. from Ø 420 mm.

Cutted dimensions and special lengths are also available upon request.

TKG®FLON SHEETS

Finished size mm. ≠	Tolerance mm. ≠	Delivery weight Kg/plate.
1200 x 1200 x 1	+0 / +0,1	3,70
1200 x 1200 x 1,5	+0 / +0,2	4,80
1200 x 1200 x 2	+0 / +0,3	6,50
1200 x 1200 x 2,5	+0 / +0,3	8,20
1200 x 1200 x 3	+0 / +0,3	10,10
1200 x 1200 x 4	+0 / +0,35	14,50
1200 x 1200 x 5	+0 / +1,0	18,00
1200 x 1200 x 6	+0 / +1,0	21,00
1200 x 1200 x 8	+0 / +1,2	28,50
1200 x 1200 x 10	+0 / +1,5	35,50
1200 x 1200 x 12	+0 / +1,5	43,00
1200 x 1200 x 15	+0 / +15%	53,00
1200 x 1200 x 20	+0 / +15%	72,00
1200 x 1200 x 25	+0 / +15%	90,00
1200 x 1200 x 30	+0 / +15%	106,00
1200 x 1200 x 40	+0 / +15%	141,00
1200 x 1200 x 50	+0 / +15%	184,00
1200 x 1200 x 60	+0 / +15%	210,00
1200 x 1200 x 70	+0 / +15%	238,00

Finished size mm. ≠	Tolerance mm. ≠	Delivery weight Kg/plate.
2000 x 1000 x 2	+0 / +0,3	9,45
2000 x 1000 x 3	+0 / +0,3	14,18
2000 x 1000 x 4	+0 / +0,35	18,90
2000 x 1000 x 5	+0 / +1,0	23,50
2000 x 1000 x 6	+0 / +1,0	29,10
2000 x 1000 x 8	+0 / +1,2	39,40
2000 x 1000 x 10	+0 / +1,5	47,90
2000 x 1000 x 12	+0 / +1,5	58,00
2000 x 1000 x 15	+0 / +15%	71,60
2000 x 1000 x 20	+0 / +15%	95,40
2000 x 1000 x 25	+0 / +15%	118,30
2000 x 1000 x 30	+0 / +15%	142,90
2000 x 1000 x 40	+0 / +15%	189,80
2000 x 1000 x 50	+0 / +15%	232,50

Cutted dimensions and special lengths or thicknesses are also available upon request.

TKG®FLON EXTRUDED TUBES

Finished size mm. Ø x Ø	Delivery weight Kg/m.	Finished size mm. Ø x Ø	Delivery weight Kg/m.	Finished size mm. Ø x Ø	Delivery weight Kg/m.	Finished size mm. Ø x Ø	Delivery weight Kg/m.
10 x 4	0,150	27 x 15	0,897	50 x 20	3,950	80 x 55	6,200
x 5	0,140		0,825		3,550		5,550
x 6	0,120		0,650		3,090		4,200
12 x 6	0,210	28 x 15	1,090	x 35	2,530	x 70	3,600
x 8	0,184		0,950		1,800		8,800
14 x 6	0,290	x 20	0,730	55 x 20	4,780	x 60	6,750
x 8	0,280	30 x 8	1,520		4,150	x 65	5,700
x 10	0,213		1,470		3,810	x 70	4,900
15 x 6	0,365	x 12	1,450		3,500	x 75	3,550
x 8	0,300	x 15	1,290	x 40	2,910	90 x 50	10,350
x 10	0,255	x 18	1,150		2,020		8,100
16 x 6	0,420	x 20	0,950		5,720	x 65	7,080
x 8	0,380	x 22	0,800	x 25	5,340	x 70	6,160
x 10	0,341	x 25	0,710	x 30	4,940	x 75	5,400
x 12	0,250	32 x 10	1,750	x 35	4,550	x 80	4,050
18 x 6	0,510		1,520	x 40	3,970	95 x 60	9,850
x 8	0,485		1,340	x 45	3,480		5,500
x 10	0,410		1,125	x 50	2,380		4,300
x 12	0,350		0,800	65 x 25	6,250	100 x 50	13,850
20 x 6	0,675	35 x 10	2,050		5,885		12,500
x 8	0,637		1,840		5,330		12,250
x 10	0,600		1,800		4,800		7,100
x 12	0,550		1,605		4,200		5,450
x 14	0,434		1,430		3,315		4,750
22 x 6	0,785	x 25	1,250	x 55	2,540	105 x 80	8,950
x 8	0,753	38 x 20	2,100	70 x 30	7,135		10,600
x 10	0,687		1,563		6,450	x 85	9,850
x 12	0,600		1,390		6,230	x 90	7,700
x 14	0,520		1,120		5,300	115 x 80	13,000
x 15	0,500	40 x 10	2,680		4,700		9,600
x 16	0,460		2,550	x 50	4,700	x 90	6,650
25 x 6	1,070	x 20	2,280	x 60	2,900	120 x 60	20,000
x 8	1,040	x 25	1,850	75 x 35	7,725		17,000
x 10	0,945	x 30	1,450		7,165	x 100	9,000
x 12	0,930	45 x 10	3,445		6,475	125 x 70	19,500
x 14	0,850		3,270		5,550		15,200
x 15	0,750		2,910	x 55	4,945	x 100	11,000
x 18	0,675	x 25	2,670	x 60	4,300	130 x 60	23,500
x 20	0,540	x 30	2,230	x 65	3,125		12,700
27 x 10	1,120	x 35	1,850	80 x 40	9,000	135 x 80	21,000
x 12	1,130	50 x 15	4,500		7,020		10,200

Standard lengths: 2000 mm. / 1000 mm.

Cutted dimensions and special lengths are also available upon request.

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.
35 x 15	2,3	70 x 45	6,0	90 x 60	9,0	105 x 75	11,3
x 20	2,0	x 50	5,2	x 65	8,0	x 80	10,0
x 25	1,6	x 55	4,3	x 70	6,8	x 85	8,6
40 x 15	3,0	75 x 20	10,0	95 x 20	16,0	110 x 20	22,5
x 20	2,7	x 25	9,7	x 25	15,6	x 25	22,1
x 25	2,3	x 30	9,2	x 30	15,2	x 30	21,6
45 x 15	3,8	x 35	8,7	x 35	14,7	x 35	21,1
x 20	3,5	x 40	8,1	x 40	14,1	x 40	20,5
x 25	3,1	x 45	7,3	x 45	13,2	x 45	19,7
x 30	2,7	x 50	6,5	x 50	12,4	x 50	18,9
50 x 15	4,6	x 55	5,6	x 55	11,6	x 55	18,0
x 20	4,4	x 60	4,6	x 60	10,6	x 60	17,1
x 25	4,0	80 x 20	11,4	x 65	9,6	x 65	16,0
x 30	3,5	x 25	11,0	x 70	8,5	x 70	14,9
x 35	3,0	x 30	10,6	x 75	7,3	x 75	13,6
55 x 20	5,4	x 35	10,1	x 80	6,0	x 80	12,3
x 25	5,0	x 40	9,5	100 x 20	18,0	x 85	10,9
x 30	4,6	x 45	8,6	x 25	17,7	x 90	9,5
x 35	4,1	x 50	7,8	x 30	17,2	x 95	7,9
x 40	3,5	x 55	7,0				
60 x 15	6,7	x 60	6,0	x 35	16,7	115 x 20	24,9
x 20	6,4	x 65	5,0	x 40	16,1	x 25	24,5
x 25	6,1	85 x 20	12,8	x 45	15,3	x 30	24,1
x 30	5,6	x 25	12,5	x 50	14,5	x 40	22,9
x 35	5,1	x 30	12,0	x 55	13,6	x 45	22,2
x 40	4,5	x 35	11,5	x 60	12,7	x 50	21,4
x 45	3,6	x 40	10,9	x 65	11,6	x 55	20,5
65 x 15	7,8	x 45	10,1	x 70	10,5	x 60	19,5
x 20	7,5	x 50	9,3	x 75	9,3	x 65	18,4
x 25	7,2	x 55	8,4	x 80	8,0	x 70	17,3
x 30	6,7	x 60	7,5	x 85	6,7	x 75	16,1
x 35	6,2	x 65	6,4	105 x 20	20,2	x 80	14,8
x 40	5,6	x 70	5,3	x 30	19,3	x 85	13,4
x 45	4,9	90 x 20	14,4	x 35	18,8	x 90	11,9
x 50	4,0	x 25	14,0	x 40	18,1	x 95	10,3
70 x 15	9,0	x 30	13,6	x 45	17,4	x 100	8,7
x 20	8,7	x 35	13,0	x 50	16,6	120 x 20	27,0
x 25	8,4	x 40	12,4	x 55	15,7	x 30	26,2
x 30	7,9	x 45	11,6	x 60	14,8	x 40	25,0
x 35	7,4	x 50	10,8	x 65	13,7	x 45	24,3
x 40	6,8	x 55	10,0	x 70	12,6	x 50	23,5

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.
120 x 55	22,6	130 x 95	16,9	140 x 120	13,0	150 x 135	11,8
x 60	21,6	x 100	15,3	x 125	11,0	x 25	44,5
x 65	20,6	x 105	13,6	145 x 40	37,0	x 40	42,9
x 70	19,4	x 110	11,7	x 45	36,3	x 45	42,1
x 75	18,2	x 115	9,8	x 50	35,5	x 50	41,3
x 80	16,9	135 x 25	33,5	x 60	33,6	x 60	39,5
x 85	15,5	x 30	33,1	x 65	32,6	x 65	38,5
x 90	14,0	x 40	31,9	x 70	31,5	x 70	37,3
x 95	12,4	x 50	30,4	x 75	30,3	x 75	36,1
x 100	10,8	x 55	29,5	x 80	29,0	x 80	34,8
x 105	9,1	x 60	28,5	x 85	27,6	x 85	33,4
125 x 25	29,3	x 65	27,4	x 90	26,1	x 90	32,0
x 30	28,9	x 70	26,3	x 95	24,6	x 95	30,4
x 40	27,7	x 75	25,1	x 100	22,9	x 100	28,8
x 45	26,9	x 80	23,8	x 105	21,2	x 105	27,1
x 50	26,1	x 85	22,4	x 110	19,4	x 110	25,3
x 55	25,3	x 90	20,9	x 115	17,5	x 115	23,4
x 60	24,3	x 95	19,3	x 120	15,6	x 120	21,4
x 65	23,2	x 100	17,7	x 125	13,5	x 125	19,4
x 70	22,1	x 105	15,9	x 130	11,4	x 130	17,3
x 75	20,9	x 110	14,1	150 x 20	41,6	x 135	15,0
x 80	19,5	x 115	12,2	x 25	41,2	x 140	11,8
x 85	18,2	x 120	10,2	x 40	39,6	160 x 25	48,1
x 90	16,7	140 x 20	36,5	x 45	38,9	x 40	46,5
x 95	15,1	x 35	35,1	x 50	38,1	x 45	45,8
x 100	13,5	x 40	34,4	x 55	37,2	x 50	45,0
x 105	11,7	x 45	33,7	x 60	36,3	x 55	44,1
x 110	9,9	x 50	32,9	x 65	35,2	x 65	42,1
130 x 20	31,5	x 55	32,1	x 70	34,1	x 70	41,0
x 25	31,2	x 60	31,1	x 75	32,9	x 75	39,8
x 40	29,5	x 65	30,1	x 80	31,6	x 80	38,5
x 45	28,8	x 70	28,9	x 85	30,2	x 85	37,1
x 50	28,0	x 75	27,7	x 90	28,7	x 90	35,6
x 55	27,1	x 80	26,4	x 95	27,2	x 95	34,1
x 60	26,1	x 85	25,0	x 100	25,6	x 100	32,5
x 65	25,1	x 90	23,6	x 105	23,8	x 105	30,7
x 70	23,9	x 95	22,0	x 110	22,0	x 110	28,9
x 75	22,7	x 100	20,4	x 115	20,2	x 115	27,1
x 80	21,4	x 105	18,7	x 120	18,2	x 120	25,1
x 85	20,0	x 110	16,9	x 125	16,1	x 125	23,1
x 90	18,5	x 115	15,0	x 130	14,0	x 130	20,9

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø		Delivery weight g/mm.		Finished size mm. Ø x Ø		Delivery weight g/mm.		Finished size mm. Ø x Ø		Delivery weight g/mm.		Finished size mm. Ø x Ø		Delivery weight g/mm.	
160	x 135	18,7		175	x 60	51,5		185	x 60	58,2		190	x 167	20,4	
	x 140	15,5			x 65	50,5			x 65	57,2			x 172	17,5	
	x 145	13,0			x 70	49,3			x 70	56,0			x 177	14,6	
165	x 35	50,3			x 85	45,5			x 75	54,8		195	x 65	64,6	
	x 40	49,7			x 90	44,0			x 80	53,5			x 80	61,0	
	x 50	48,2			x 95	42,4			x 85	52,2			x 100	54,9	
	x 60	46,4			x 100	40,8			x 90	50,7			x 105	53,1	
	x 70	44,2			x 105	39,1			x 100	47,5			x 115	49,4	
	x 75	43,0			x 110	37,3			x 105	45,8			x 125	45,4	
	x 80	41,7			x 115	35,4			x 110	44,0			x 130	43,2	
	x 85	40,3			x 120	33,5			x 115	42,1			x 135	41,0	
	x 90	38,8			x 125	31,4			x 120	40,2			x 140	37,7	
	x 100	35,7			x 130	29,3			x 125	38,1			x 146	35,2	
	x 105	34,0			x 135	27,1			x 130	36,0			x 151	32,7	
	x 110	32,2			x 140	23,8			x 135	33,8			x 156	30,1	
	x 115	30,3			x 146	21,4			x 140	30,5			x 161	27,4	
	x 120	28,3			x 151	18,9			x 146	28,1			x 167	24,0	
	x 125	26,3			x 156	16,3			x 151	25,6			x 172	21,2	
	x 130	24,1			x 161	13,7			x 156	23,0			x 177	18,2	
	x 135	21,9		180	x 30	59,8			x 161	20,4			x 182	15,1	
	x 140	18,7			x 40	58,3			x 167	17,0		200	x 45	72,6	
	x 146	16,3			x 50	56,8			x 172	14,2			x 50	71,8	
	x 151	13,8			x 60	55,0	190	x 40	64,9			x 60	69,9		
170	x 40	52,7			x 70	52,8			x 50	63,4			x 70	67,7	
	x 50	51,2			x 80	50,3			x 60	61,5			x 75	66,5	
	x 60	49,4			x 85	48,9			x 80	56,9			x 80	65,2	
	x 70	47,2			x 90	47,5			x 85	55,5			x 90	62,3	
	x 80	44,7			x 95	45,9			x 90	54,0			x 95	60,8	
	x 90	41,8			x 100	44,3			x 100	50,8			x 100	59,1	
	x 95	40,3			x 105	42,6			x 105	49,1			x 105	57,4	
	x 100	38,7			x 110	40,8			x 110	47,3			x 110	55,6	
	x 105	37,0			x 115	38,9			x 115	45,4			x 115	53,7	
	x 110	35,2			x 120	36,9			x 120	43,5			x 120	51,7	
	x 115	33,3			x 125	34,9			x 125	41,4			x 125	49,6	
	x 120	31,3			x 130	32,7			x 130	39,3			x 130	47,4	
	x 125	29,3			x 135	30,5			x 135	37,1			x 135	45,2	
	x 130	27,1			x 140	27,3			x 140	33,8			x 140	41,9	
	x 135	24,9			x 146	24,9			x 146	31,4			x 146	39,5	
	x 140	21,7			x 151	22,4			x 151	28,9			x 151	36,9	
	x 146	19,3			x 156	19,8			x 156	26,3			x 157	34,3	
	x 151	16,8			x 161	17,1			x 161	23,7			x 161	31,6	

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.
200 x 167	28,3	210 x 156	42,4	220 x 165	44,9	230 x 167	51,7
x 172	25,4	x 161	39,7	x 170	42,0	x 172	48,9
x 177	22,4	x 167	36,4	x 175	39,0	x 177	45,9
x 182	19,4	x 172	33,5	x 180	36,0	x 187	39,4
x 187	15,9	x 177	30,5	x 185	32,5	x 195	34,5
205 x 50	75,4	x 182	27,5	x 190	28,7	x 200	31,8
x 70	71,4	x 187	24,0	x 195	27,6	x 205	28,4
x 80	68,8	x 196	19,1	x 200	25,0	x 210	24,9
x 85	67,4	215 x 50	84,5	x 205	21,5	x 215	20,2
x 100	62,7	x 80	77,9	225 x 110	74,5	235 x 110	82,7
x 105	61,0	x 90	75,0	x 120	70,6	x 115	80,8
x 110	59,2	x 95	73,4	x 125	67,9	x 120	78,8
x 115	57,3	x 100	71,8	x 135	64,1	x 172	52,6
x 120	55,3	x 110	68,2	x 140	61,4	x 182	46,6
x 125	53,2	x 120	64,4	x 146	58,4	x 187	43,1
x 130	51,1	x 125	62,3	x 151	55,9	x 195	38,2
x 135	48,8	x 146	52,2	x 156	53,4	x 200	35,5
x 140	45,5	x 151	49,6	x 161	50,6	x 205	32,1
x 146	43,1	x 156	47,0	x 167	47,3	x 210	28,6
x 151	40,6	x 161	44,3	x 172	44,4	x 215	23,5
x 156	38,0	x 167	41,0	x 177	41,4	x 220	19,8
x 161	35,3	x 172	38,1	x 182	38,4	240 x 80	97,0
x 167	31,9	x 177	35,1	x 187	35,5	x 100	90,9
x 172	29,0	x 182	32,1	x 190	32,7	x 120	83,5
x 177	26,1	x 187	28,6	x 195	30,8	x 135	77,0
x 182	23,0	x 195	23,7	x 200	27,4	x 151	68,8
x 187	19,6	x 200	21,0	x 205	23,9	x 156	66,2
210 x 50	79,9	220 x 50	88,4	230 x 45	96,1	x 161	63,5
x 70	75,8	x 80	81,8	x 75	90,0	x 172	57,2
x 80	73,3	x 90	78,9	x 85	87,3	x 182	51,2
x 90	70,4	x 100	75,7	x 90	85,8	x 187	47,7
x 95	68,9	x 110	72,2	x 100	82,6	x 195	42,9
x 100	67,2	x 115	70,3	x 110	79,0	x 200	40,2
x 110	63,7	x 120	68,3	x 120	75,1	x 205	36,8
x 120	59,8	x 125	66,2	x 125	73,0	x 210	33,3
x 125	57,7	x 130	64,0	x 135	68,6	x 215	28,6
x 130	55,5	x 140	58,5	x 140	65,4	x 220	24,5
x 135	53,3	x 145	56,1	x 146	62,9	x 225	19,9
x 140	50,0	x 150	53,5	x 151	60,4	245 x 110	92,1
x 146	47,6	x 155	50,9	x 156	57,8	x 151	73,5
x 151	45,0	x 160	48,2	x 161	55,1	x 167	64,9

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.
245 x 172	62,0	255 x 205	52,2	265 x 220	49,3	275 x 257	27,9
x 177	59,0	x 210	48,7	x 225	44,7	280 x 60	141,1
x 182	56,0	x 215	43,7	x 240	32,7	x 100	130,3
x 200	44,9	x 220	40,0	x 246	27,8	x 135	116,4
x 210	38,0	x 225	35,4	x 253	21,8	x 151	108,1
x 215	32,9	x 230	31,5	270 x 70	129,1	x 161	102,8
x 220	29,2	x 235	27,5	x 90	123,7	x 167	99,5
x 225	24,7	x 240	23,4	x 130	108,8	x 182	90,6
x 230	20,8	260 x 50	123,7	x 146	100,8	x 195	82,2
250 x 40	115,2	x 75	118,4	x 151	98,3	x 200	79,6
x 70	109,6	x 90	114,2	x 156	95,7	x 210	72,6
x 80	107,1	x 95	112,7	x 172	86,8	x 215	67,6
x 90	104,2	x 100	111,0	x 177	83,8	x 220	63,8
x 100	101,0	x 110	107,5	x 182	80,8	x 230	55,4
x 110	97,4	x 125	101,5	x 187	77,3	x 240	47,3
x 120	93,5	x 135	97,1	x 195	72,4	x 246	42,3
x 130	89,3	x 140	93,8	x 200	69,7	x 253	36,4
x 140	83,8	x 146	91,4	x 205	66,3	x 257	32,9
x 151	78,8	x 151	88,8	x 210	62,8	x 267	23,9
x 156	76,2	x 156	86,2	x 215	57,7	285 x 90	137,7
x 161	73,5	x 161	83,5	x 220	54,0	x 146	116,2
x 172	67,3	x 167	80,2	x 225	49,5	x 161	109,7
x 177	64,3	x 177	74,3	x 230	45,6	x 182	97,4
x 182	61,2	x 182	71,3	x 235	41,6	x 187	94,0
x 187	57,8	x 187	67,8	x 240	37,5	x 210	79,5
x 195	52,9	x 195	62,9	x 246	32,5	x 215	74,4
x 200	50,2	x 200	60,3	x 253	26,5	x 220	70,7
x 205	46,8	x 205	56,8	x 257	23,0	x 230	62,2
x 210	43,3	x 210	53,3	275 x 161	97,9	x 235	58,3
x 215	38,2	x 215	48,3	x 167	94,5	x 240	54,2
x 220	34,5	x 220	44,6	x 172	91,6	x 246	49,2
x 225	30,0	x 225	40,0	x 177	88,7	x 253	43,2
x 230	26,1	x 230	36,1	x 200	74,6	x 267	30,8
x 235	22,1	x 235	32,1	x 205	71,2	290 x 95	144,7
255 x 75	113,8	x 240	28,0	x 210	67,7	x 172	109,3
x 95	108,1	x 245	23,0	x 215	62,6	x 200	92,3
x 151	84,2	265 x 140	98,5	x 220	58,9	x 210	85,4
x 172	72,7	x 172	81,7	x 230	50,4	x 215	80,7
x 177	69,7	x 182	76,0	x 235	46,4	x 220	76,6
x 182	66,7	x 205	61,5	x 246	37,4	x 225	72,0
x 187	63,2	x 215	53,7	x 253	31,4	x 230	68,1

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.
290 x 240	60,1	305 x 267	55,4	325 x 270	71,3	345 x 298	66,0
x 246	55,1	x 277	46,5	x 307	34,2	x 307	55,6
x 253	49,1	x 287	36,4	330 x 120	182,9	x 315	46,0
x 257	45,6	x 292	31,5	x 161	162,8	x 320	40,6
x 267	36,6	310 x 70	175,4	x 167	159,5	x 327	32,8
x 270	33,4	x 100	166,7	x 187	146,8	x 332	26,5
x 277	27,8	x 151	144,6	x 200	139,6	350 x 200	164,5
295 x 270	37,1	x 167	135,9	x 210	132,6	x 215	152,6
x 280	26,2	x 195	118,7	x 215	127,6	x 230	140,4
300 x 80	157,0	x 200	116,0	x 246	102,3	x 246	127,3
x 100	150,9	x 215	104,0	x 253	96,4	x 253	122,2
x 120	143,5	x 225	95,7	x 257	92,9	x 257	117,9
x 146	131,3	x 235	87,8	x 267	83,9	x 267	108,9
x 151	128,8	x 240	83,8	x 272	80,7	x 277	100,1
x 172	117,2	x 246	78,8	x 277	75,1	x 287	89,9
x 182	111,2	x 253	72,8	x 287	65,0	x 292	85,0
x 195	102,9	x 257	69,3	x 298	54,0	x 298	78,9
x 200	100,2	x 267	60,3	x 302	48,8	x 307	68,6
x 205	96,8	x 270	57,1	x 307	43,6	x 315	59,0
x 210	93,3	x 277	51,5	x 310	39,4	x 320	53,5
x 215	88,2	x 287	41,4	x 315	34,0	x 327	45,8
x 220	84,5	320 x 70	183,8	340 x 195	148,2	x 332	39,5
x 230	76,0	x 140	158,0	x 210	138,6	x 335	36,7
x 235	72,0	x 151	153,0	x 220	129,8	360 x 90	228,0
x 240	68,0	x 177	138,5	x 240	113,3	x 220	158,3
x 246	63,0	x 195	127,1	x 257	98,8	x 282	104,3
x 253	57,0	x 205	121,0	x 267	89,9	x 287	99,4
x 257	53,5	x 215	112,5	x 272	86,7	x 292	94,5
x 267	44,5	x 225	104,2	x 287	70,9	x 302	83,3
x 270	41,3	x 230	100,3	x 298	59,9	x 307	78,1
x 277	35,7	x 240	92,2	x 307	49,6	x 315	68,5
x 287	25,6	x 246	87,2	x 315	40,0	x 320	63,0
305 x 183	121,0	x 253	81,3	x 320	34,5	x 327	55,2
x 187	118,0	x 257	77,8	x 327	26,7	x 340	40,4
x 210	104,1	x 270	65,6	345 x 60	213,7	x 347	32,1
x 215	99,0	x 277	60,0	x 240	119,3	370 x 50	246,5
x 220	95,3	x 282	54,7	x 246	114,4	x 151	211,7
x 235	82,9	x 287	49,9	x 257	104,9	x 177	197,1
x 246	73,8	x 298	38,9	x 270	92,7	x 200	183,1
x 253	67,8	x 307	28,5	x 287	77,0	x 253	139,9
x 257	64,3	325 x 257	83,5	x 292	72,0	x 272	124,7

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.
370 x 287	108,5	405 x 335	121,0	440 x 415	59,5	490 x 465	66,3
x 298	97,5	x 360	83,3	450 x 215	300,4	500 x 305	303,7
x 307	87,1	x 370	69,5	x 315	206,8	x 347	256,7
x 315	77,5	410 x 90	299,1	x 335	184,5	x 385	209,0
x 327	64,3	x 200	245,1	x 360	155,9	x 405	181,9
x 335	55,2	x 265	189,5	x 370	142,2	x 415	167,9
x 347	41,1	x 295	164,6	x 385	122,8	x 430	144,7
380 x 205	202,3	x 320	134,1	x 405	95,7	x 450	116,0
x 230	181,5	x 325	126,3	x 415	81,7	x 465	92,6
x 235	177,6	x 330	120,1	x 430	58,5	x 470	68,3
x 253	162,5	x 345	103,2	465 x 172	347,3	515 x 110	472,8
x 257	159,0	x 360	88,6	x 292	250,7	x 285	351,0
x 267	150,1	x 370	74,9	x 315	224,7	x 335	297,7
x 277	140,8	x 380	62,0	x 335	202,4	x 405	208,9
x 287	131,1	x 385	55,5	x 347	188,3	x 415	194,9
x 292	126,2	x 390	48,8	x 360	173,8	x 430	171,7
x 298	120,1	425 x 230	243,2	x 385	140,6	x 450	143,1
x 307	109,8	x 277	202,4	x 390	134,0	x 465	119,6
x 315	100,2	x 287	192,7	x 405	113,6	x 470	95,4
x 320	94,7	x 310	171,4	x 415	99,5	x 490	77,1
x 327	86,9	x 315	161,8	x 430	77,8	x 500	60,2
x 335	77,8	x 327	148,5	x 450	47,7	530 x 385	263,8
x 347	63,8	x 335	139,4	480 x 230	331,1	x 405	237,0
x 360	49,2	x 347	125,4	x 335	227,4	x 430	199,5
390 x 140	256,8	x 360	110,9	x 347	213,3	x 450	170,9
x 215	211,7	x 370	97,1	x 360	198,8	x 465	147,4
x 253	180,5	x 385	77,7	x 385	165,6	x 480	123,2
x 287	149,1	x 400	57,5	x 390	159,0	x 490	104,9
x 298	138,1	x 405	50,6	x 405	138,5	x 510	74,1
x 307	127,7	440 x 90	344,3	x 415	124,5	545 x 145	510,0
x 320	112,7	x 200	290,3	x 430	101,3	x 360	325,5
x 335	95,8	x 257	243,6	x 450	72,7	x 385	292,3
x 350	81,7	x 320	179,3	x 465	49,2	x 405	265,3
x 360	67,2	x 340	156,6	490 x 320	261,3	x 415	251,2
x 370	53,5	x 347	148,4	x 360	215,9	x 430	228,0
405 x 135	276,6	x 360	133,8	x 380	189,3	x 450	199,4
x 146	269,6	x 370	120,1	x 385	182,7	x 465	175,9
x 240	207,5	x 385	100,7	x 405	155,6	x 480	151,7
x 298	154,2	x 390	94,0	x 415	141,6	x 490	133,4
x 315	134,2	x 400	80,5	x 430	118,4	x 500	116,5
x 320	128,7	x 405	73,6	x 450	89,8	x 510	102,7

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø		Delivery weight g/mm.		Finished size mm. Ø x Ø		Delivery weight g/mm.		Finished size mm. Ø x Ø		Delivery weight g/mm.		Finished size mm. Ø x Ø		Delivery weight g/mm.	
545	x 520	83,4		610	x 510	246,0		680	x 360	648,0		770	x 580	521,0	
560	x 292	428,7			x 520	226,6			x 490	456,0			x 615	447,0	
	x 320	398,3			x 535	199,6			x 600	242,6			x 650	373,0	
	x 405	292,6			x 545	181,2			x 615	209,2			x 700	257,1	
	x 430	255,4			x 565	143,3			x 630	179,2			x 720	208,4	
	x 450	226,7			x 580	104,0			x 650	135,2			x 735	171,0	
	x 465	203,3			x 590	83,9		690	x 540	389,8			x 745	140,5	
	x 480	179,0		620	x 480	334,4			x 580	312,6		790	x 650	442,6	
	x 490	160,8			x 510	284,4			x 600	272,0			x 670	397,2	
	x 510	130,0			x 520	264,7			x 615	276,0			x 700	326,7	
	x 520	110,7			x 545	218,3			x 630	208,6			x 720	278,0	
	x 535	83,7			x 565	179,7			x 650	164,6			x 735	240,6	
	x 545	65,2			x 580	139,6			x 670	119,3			x 760	176,5	
570	x 225	523,4			x 590	119,1		700	x 580	350,0			x 770	137,0	
	x 255	499,0		640	x 347	549,8			x 600	309,4		815	x 600	621,7	
	x 360	384,9			x 390	495,4			x 615	276,0			x 700	398,4	
	x 450	258,8			x 465	385,7			x 630	246,0			x 760	248,2	
	x 490	192,8			x 510	312,5			x 650	202,0			x 770	208,7	
	x 500	175,9			x 520	293,1			x 670	156,7			x 785	168,5	
	x 510	162,1			x 535	266,1		720	x 520	510,8		840	x 720	420,5	
	x 520	142,7			x 545	247,7			x 580	388,2			x 735	383,0	
	x 535	115,7			x 565	209,8			x 600	348,0			x 790	239,3	
	x 545	97,3			x 580	170,5			x 615	314,2			x 805	198,3	
590	x 390	386,3			x 590	150,4			x 670	194,9			x 810	184,5	
	x 405	365,9			x 600	129,9			x 685	160,0			x 815	156,6	
	x 415	351,9			x 615	96,5			x 700	124,3		860	x 490	654,1	
	x 480	252,4		655	x 480	407,5		740	x 600	386,6			x 745	400,8	
	x 490	234,1			x 500	372,3			x 630	323,1			x 760	367,3	
	x 510	203,3			x 565	253,0			x 685	198,9		880	x 790	349,2	
	x 520	184,0			x 580	216,5			x 700	163,3			x 800	308,2	
	x 535	157,0			x 590	196,4			x 720	114,6			x 815	266,4	
	x 545	138,5			x 600	175,9			x 728	94,7			x 835	209,6	
	x 565	100,7			x 615	142,5		750	x 490	639,6			x 860	136,6	
610	x 390	429,0			x 630	112,5			x 540	544,0		900	x 760	504,5	
	x 415	394,5		670	x 450	490,6			x 580	466,0			x 785	424,8	
	x 430	371,3			x 545	329,1			x 615	392,8			x 800	383,9	
	x 450	342,7			x 580	251,9			x 670	273,5			x 815	342,1	
	x 465	319,2			x 600	211,3			x 685	236,0			x 840	285,3	
	x 475	303,1			x 615	178,0			x 700	203,0			x 860	212,3	
	x 480	295,0			x 630	147,9			x 720	154,3		910	x 600	929,6	
	x 490	276,7			x 650	103,9			x 735	116,9			x 735	620,1	

TKG®FLON MOULDED TUBES

Finished size mm. Ø x Ø	Delivery weight g/mm.	Finished size mm. Ø x Ø	Delivery weight g/mm.		
910	x 815	393,6	1380	x 1220	948,6
	x 860	263,9		x 1300	626,1
	x 885	188,8		x 1340	453,4
930	x 860	329,5	1440	x 1300	933,3
	x 885	254,4		x 1380	563,9
	x 915	161,6		x 1400	444,0
950	x 815	526,3		x 1420	331,8
	x 860	396,5			
	x 925	196,9			
965	x 885	389,8			
	x 925	265,3			
	x 945	201,0			
1000	x 650	1124,6			
	x 860	566,3			
	x 920	398,4			
	x 945	302,5			
	x 970	223,5			
1050	x 925	570,8			
	x 970	427,6			
	x 990	356,9			
	x 1000	305,6			
1120	x 945	804,4			
	x 1000	603,5			
	x 1040	462,7			
	x 1080	335,1			
1200	x 1040	793,5			
	x 1130	453,1			
	x 1160	338,7			
1215	x 1130	534,8			
	x 1160	420,5			
1260	x 1080	932,6			
	x 1160	605,5			
	x 1200	422,4			
	x 1220	313,5			
1300	x 1200	567,4			
	x 1220	458,5			
	x 1280	225,0			
1320	x 1300	275,1			
1340	x 1130	1112,5			
	x 1280	472,7			
	x 1300	383,7			

TKG® FLON (PTFE)

Density 2,13 – 2,18 g/cm³

Colour White opaque

Chemical Designation PTFE (Polytetrafluorethylene)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	20 minimum	MPa		ASTM D 4894
Elongation at break	200 minimum	%		ASTM D 4894
Hardness	54 minimum	Shore D		ISO 13000-2
Compression strength	70 minimum	Kg/cm ²	1%	
Ball indentation hardness	23 minimum	MPa		ISO 13000-2
Deformation under load	10 – 13	%	For 24 hours at 23°C	ASTM D621
Deformation under load	6 – 7,5	%	After 24 hour relaxation 23°C	ASTM D621
Coefficient of static friction	0,08 – 0,10			ASTM D1894
Coefficient of dynamic friction	0,06 – 0,08			ASTM D1894
<i>Thermal properties</i>				
Service temperature	-200 / +260	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
Thermal conductivity	0,24	W / (k*m)		ASTM C 177
<i>Electrical properties</i>				
Specific volume resistivity	10 ¹⁸	Ω*cm		ASTM D 257
Dielectric strength	20 – 70	kV / mm	In air	ASTM D 149
Dielectric constant	2,1		60 Hz to 2GHz	ASTM D 150
<i>Miscellaneous properties</i>				
Water absorption	Less than 0,01	%	23°C	ASTM D 570
Resistance to hot mater / bases	-			
Resistance to weathering				
Flammability (UL94)	VE - 0		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Excellent resistance to continuous service temperature up to 260°C.

Satisfactory low temperature resistance as low as -200°C.

Excellent chemical resistance

Excellent electrical insulation

Excellent slide and wear properties

Inherent flame retardant

INDUSTRY APPLICATIONS

Automotive industry

Conveyor technology

Chemical plant engineering

Electrical and precision engineering

Food engineering

Medical industry

TKG® FLON 3MO (PTFE + 3%MoS2)

Density 2,25 g/cm³

Colour Black

Chemical Designation PTFE 97% (Polytetrafluorethylene) + Molybdenum bisulfide 3%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	25 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	250 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	12,50 – 13,50	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,08 – 0,10			ASTM D1894
Coefficient of dynamic friction	0,06 – 0,08			ASTM D1894
Permanent deformation	5,0 – 6,0	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	55 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	-	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁸	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great thermal conductivity
 Good wear resistance
 Low coefficient of friction
 Good self-lubricant

INDUSTRY APPLICATIONS

High voltage insulators
 Dynamic seal applications

TKG® FLON 10CB (PTFE + 10%CARBON)

Density 2,17 g/cm³

Colour Black

Chemical Designation PTFE 90% (Polytetrafluorethylene) + Carbon 10%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i><u>Mechanical properties</u></i>				
Tensile strength	20 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	200 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	10 min.	MPa	1%	ASTM D 695
Deformation under load	9 – 11	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,14 – 0,15			
Coefficient of dynamic friction	0,10 – 0,11			
Permanent deformation	3 – 5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	62 min.	Shore D		ASTM D2240
<i><u>Thermal properties</u></i>				
Glass transition temperature	-	°C		DIN 53765
Melting temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
Thermal expansion	10,5 – 12,5	10 ⁻⁵ K ⁻¹	25-100°C long	ASTM C 177
Thermal conductivity	-	W / (k*m)		ASTM C 177
<i><u>Electrical properties</u></i>				
Radiations resistance	Electr. properties no change		Gamma rays	low
Volume resistance	10 ⁷	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i><u>Miscellaneous properties</u></i>				
Ageing and weatherability	Stable over 20 years exposure			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Good thermal conductivity

Excellent compression and wear resistance

Low permeability

If combined with ceramics, the thermal expansion improves

INDUSTRY APPLICATIONS

Seal applications, Piston rings for dry compressors, Bearings, Grooved mechanical support

TKG® FLON 15CB (PTFE + 15%CARBON)

Density 2,14 g/cm³

Colour Black

Chemical Designation PTFE 85% (Polytetrafluorethylene) + Carbon 15%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i><u>Mechanical properties</u></i>				
Tensile strength	14 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	150 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	9 min.	MPa	1%	ASTM D 695
Deformation under load	7 – 9	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,14 – 0,15			
Coefficient of dynamic friction	0,10 – 0,11			
Permanent deformation	2 – 4	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	62 min.	Shore D		ASTM D2240
<i><u>Thermal properties</u></i>				
Glass transition temperature	-	°C		DIN 53765
Melting temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
Thermal expansion	10,0 – 11,5	10 ⁻⁵ K ⁻¹	25-100°C long	ASTM C 177
Thermal conductivity	-	W / (k*m)		ASTM C 177
<i><u>Electrical properties</u></i>				
Radiations resistance	Electr. properties no change		Gamma rays	low
Volume resistance	10 ⁷	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i><u>Miscellaneous properties</u></i>				
Ageing and weatherability	Stable over 20 years exposure			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Good thermal conductivity

Excellent compression and wear resistance

Low permeability

If combined with ceramics, the thermal expansion improves

INDUSTRY APPLICATIONS

Seal applications,Piston rings for dry compressors,Bearings, Grooved mechanical support

TKG® FLON 15CER (PTFE + 15%CERAMIC)

Density 2,27 g/cm³

Colour Clear grey

Chemical Designation PTFE 85% (Polytetrafluorethylene) + Ceramic 15%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	18 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	150 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	10,00 – 12,00	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,30 – 0,32			ASTM D1894
Coefficient of dynamic friction	0,28 – 0,30			ASTM D1894
Permanent deformation	5,0 – 7,0	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	62 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Coeff. Linear thermal expansion	-	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	20 - 25	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great dielectric characteristics

Improved compression resistance

Very good where thermal barriers are required

INDUSTRY APPLICATIONS

Electrical applications for switches and insulators

TKG® FLON 15GF (PTFE + 15%GLASS FIBRE)

Density 2,24 g/cm³

Colour Clear grey

Chemical Designation PTFE 85% (Polytetrafluorethylene) + Glass fibre 15%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	18 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	200 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	11 – 13	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,18 – 0,20			ASTM D1894
Coefficient of dynamic friction	0,11 – 0,13			ASTM D1894
Permanent deformation	5,5 – 6,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	58 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	8,9 – 12,7	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Coeff. Linear thermal expansion	10,2 – 13,6	10 ⁻⁵ /°C	25-150°C long	ASTM D696
Coeff. Linear thermal expansion	11,5 – 14,2	10 ⁻⁵ /°C	25-200°C long	ASTM D696
Coeff. Linear thermal expansion	13,5 – 15,6	10 ⁻⁵ /°C	25-250°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great chemical stability

Improved compression and wear resistance

When combined with MoS₂ or graphite, the thermal conductivity and coefficient of friction improve

Suitability for contact with food (depending on application)

INDUSTRY APPLICATIONS

Dynamic seal applications

Pneumatic applications

Mechanical applications

Hydraulic applications

TKG® FLON 15GF5GR (PTFE + 15%GLASS FIBRE + 5%GRAPHITE)

Density 2,17 g/cm³

Colour Black

Chemical Designation PTFE 80% (Polytetrafluorethylene) + Glass fibre 15% + Graphite 5%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	22 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	250 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	11 – 13	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,12 – 0,14			ASTM D1894
Coefficient of dynamic friction	0,10 – 0,12			ASTM D1894
Permanent deformation	5,5 – 7	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	60 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	-	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Excellent chemical stability

Better thermal conductivity and coefficient of friction

Improved compression and wear resistance

Self lubricating properties specially at starting point

INDUSTRY APPLICATIONS

Dynamic seal applications with rotating and alternating movements

Pneumatic applications

Mechanical applications

Hydraulic applications

TKG® FLON 15GF5MO (PTFE + 15%GLASS FIBRE + 5%MoS2)

Density 2,30 g/cm³

Colour Black

Chemical Designation PTFE 80% (Polytetrafluorethylene) + Glass fibre 15% + Molybdenum disulfide 5%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	18 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	200 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	11 – 13	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,12 – 0,15			ASTM D1894
Coefficient of dynamic friction	0,10 – 0,12			ASTM D1894
Permanent deformation	5,5 – 7	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	58 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	-	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Excellent chemical stability

Better thermal conductivity and coefficient of friction

Improved compression and wear resistance

Self lubricating properties specially at starting point

INDUSTRY APPLICATIONS

Dynamic seal applications with rotating and alternating movements

Pneumatic applications

Mechanical applications

Hydraulic applications

TKG® FLON 15GR (PTFE + 15%GRAPHITE)

Density 2,19 g/cm³

Colour Black

Chemical Designation PTFE 85% (Polytetrafluorethylene) + Graphite 15%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	18 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	200 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	9,50 – 11	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,12 – 0,14			ASTM D1894
Coefficient of dynamic friction	0,09 – 0,11			ASTM D1894
Permanent deformation	5,0 – 5,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	55 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Coeff. Linear thermal expansion	8,0 – 13,5	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ⁹	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	Stable over 20 years exposure			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great thermal conductivity
 Low permeability
 Low coefficient of friction
 Good self-lubricant

INDUSTRY APPLICATIONS

Dynamic seal applications
 Steering applications
 Shock absorver gaskets for light and heavy duty vehicle applications

TKG® FLON 15QTZ (PTFE + 15%QUARTZ)

Density 2,24 g/cm³

Colour natural

Chemical Designation PTFE 85% (Polytetrafluorethylene) + Quartz 15%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	18 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	240 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	11,0 – 12,0	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,18 – 0,20			ASTM D1894
Coefficient of dynamic friction	0,11 – 0,13			ASTM D1894
Permanent deformation	5,00 – 5,50	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	60 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Coeff. Linear thermal expansion	-	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Improved compression resistance
 Better thermal conductivity
 Excellent chemical stability

INDUSTRY APPLICATIONS

Dynamic seal applications
 Pneumatic applications
 Mechanical parts
 Hydraulic applications

TKG® FLON 20CA (PTFE + 20%CALCIUM)

Density 2,37 g/cm³

Colour White

Chemical Designation PTFE 80% (Polytetrafluorethylene) + Calcium fluoride 20% + Iron oxide

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	15 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	150 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	9,00 – 10,00	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,15 – 0,17			ASTM D1894
Coefficient of dynamic friction	0,12 – 0,14			ASTM D1894
Permanent deformation	4,5 – 5,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	60 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Coeff. Linear thermal expansion	9,00 – 11,00	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	Stable over 20 years exposure			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great dielectric characteristics
 Good chemical resistance
 Good compression resistance
 Improved compression resistance

INDUSTRY APPLICATIONS

Dynamic seal applications
 Static seal applications
 Electrical applications for switches and insulators

TKG® FLON 20PEEK (PTFE + 20%PEEK)

Density 1,91 g/cm³

Colour Natural

Chemical Designation PTFE 80% (Polytetrafluorethylene) + Peek 20%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	13 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	35 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	-	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	-			ASTM D1894
Coefficient of dynamic friction	-			ASTM D1894
Permanent deformation	-	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	67 min.	Shore D		ASTM D2240
<i>Thermal properties</i>				
Coeff. Linear thermal expansion	-	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<i>Electrical properties</i>				
Radiations resistance	-		Gamma rays	low
Volume resistance	-	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<i>Miscellaneous properties</i>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Better wear resistance

Better dimensional stability at high temperatures

Improved under load and permanent deformation

Low friction coefficient

Good chemical resistance

INDUSTRY APPLICATIONS

Dynamic applications with high compression and chemical resistance

TKG® FLON 25CBGR (PTFE + 25%CARBON-GRAFITE)

Density 2,11 g/cm³

Colour Black

Chemical Designation PTFE 75% (Polytetrafluorethylene) + Carbon Graphite 25%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	17 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	150 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	5 – 7	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,14 – 0,16			
Coefficient of dynamic friction	0,12 – 0,14			
Permanent deformation	2 – 4	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	60 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Glass transition temperature	-	°C		DIN 53765
Melting temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
Thermal expansion	7 – 12,5	10 ⁻⁵ K ⁻¹	25-100°C long	ASTM C 177
Thermal conductivity	-	W / (k*m)		ASTM C 177
<u>Electrical properties</u>				
Radiations resistance	Electr. properties no change		Gamma rays	low
Volume resistance	10 ⁴	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	Stable over 20 years exposure			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Good thermal conductivity

Excellent compression and wear resistance

Low permeability

INDUSTRY APPLICATIONS

Seal applications,Piston rings for dry compressors,Bearings, Grooved mechanical support

TKG® FLON 25GF (PTFE + 25%GLASS FIBRE)

Density 2,26 g/cm³

Colour Clear grey

Chemical Designation PTFE 75% (Polytetrafluorethylene) + Glass fibre 25%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	13 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	180 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)		MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	9 min.	MPa	1%	ASTM D 695
Deformation under load	9 – 11	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D 621
Coefficient of static friction	0,17 – 0,19			ASTM D1894
Coefficient of dynamic friction	0,15 – 0,17			ASTM D1894
Permanent deformation	5,0 – 6,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	60 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	7,7 – 11,2	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Coeff. Linear thermal expansion	8,5 – 11,6	10 ⁻⁵ /°C	25-150°C long	ASTM D696
Coeff. Linear thermal expansion	9,5 – 12,6	10 ⁻⁵ /°C	25-200°C long	ASTM D696
Coeff. Linear thermal expansion	11,5 – 15,1	10 ⁻⁵ /°C	25-250°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great chemical stability

Improved compression and wear resistance

When combined with MoS₂ or graphite, the thermal conductivity and coefficient of friction improve

Suitability for contact with food (depending on application)

INDUSTRY APPLICATIONS

Dynamic seal applications with rotating and alternating movements

Pneumatic applications

Mechanical applications

Hydraulic applications

TKG® FLON 40GF (PTFE + 40%GLASS FIBRE)

Density 2,29 g/cm³

Colour Clear grey

Chemical Designation PTFE 60% (Polytetrafluorethylene) + Glass fibre 40%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	10 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	100 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength		MPa	1%	ASTM D 695
Deformation under load	10 – 12	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D 621
Coefficient of static friction	0,17 – 0,19			ASTM D1894
Coefficient of dynamic friction	0,15 – 0,17			ASTM D1894
Permanent deformation	5,0 – 6,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	63 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	4,0 – 7,2	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Coeff. Linear thermal expansion	4,2 – 7,5	10 ⁻⁵ /°C	25-150°C long	ASTM D696
Coeff. Linear thermal expansion	4,6 – 8,5	10 ⁻⁵ /°C	25-200°C long	ASTM D696
Coeff. Linear thermal expansion	5,4 – 10,4	10 ⁻⁵ /°C	25-250°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great chemical stability

Improved compression and wear resistance

When combined with MoS₂ or graphite, the thermal conductivity and coefficient of friction improve

Suitability for contact with food (depending on application)

INDUSTRY APPLICATIONS

Dynamic seal applications with rotating and alternating movements

Pneumatic applications

Mechanical applications

Hydraulic applications

TKG® FLON 50INOX (PTFE + 50%INOX)

Density 3,41 g/cm³

Colour grey steel

Chemical Designation PTFE 50% (Polytetrafluorethylene) + Stainless steel AISI 316L 50%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	15 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	150 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	6,0 – 7,5	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,16 – 0,18			ASTM D1894
Coefficient of dynamic friction	0,13 – 0,15			ASTM D1894
Permanent deformation	2,50 – 3,50	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	65 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	10,00 – 11,50	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	-	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Improved compression resistance

Low permeability

Good dimensional stability

INDUSTRY APPLICATIONS

Dynamic applications with high compression and chemical resistance

Bearings

Seals for food industry machinery

TKG® FLON 40BZ (PTFE + 40%BRONZE)

Density 3,14 g/cm³

Colour Brown

Chemical Designation PTFE 60% (Polytetrafluorethylene) + Bronze 40%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	20 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	200 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	7,00 – 10,0	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,16 – 0,18			ASTM D1894
Coefficient of dynamic friction	0,14 – 0,16			ASTM D1894
Permanent deformation	4,0 – 5,0	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	65 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	-	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ⁷	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great thermal conductivity

Good wear resistance

Good compression resistance

Improved coefficient of friction with MoS₂

INDUSTRY APPLICATIONS

Dynamic seal applications

Slideways, Compression rings, Bearings for alternating

TKG® FLON 60BZ (PTFE + 60%BRONZE)

Density 3,98 g/cm³

Colour Brown

Chemical Designation PTFE 40% (Polytetrafluorethylene) + Bronze 60%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<u>Mechanical properties</u>				
Tensile strength	17 min.	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	150 min.	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	-	MPa	1%	ASTM D 695
Deformation under load	5,50 – 6,50	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,18 – 0,20			ASTM D1894
Coefficient of dynamic friction	0,16 – 0,18			ASTM D1894
Permanent deformation	2,0 – 2,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	65 min.	Shore D		ASTM D2240
<u>Thermal properties</u>				
Coeff. Linear thermal expansion	-	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
<u>Electrical properties</u>				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ⁷	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
<u>Miscellaneous properties</u>				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great thermal conductivity

Good wear resistance

Good compression resistance

Improved coefficient of friction with MoS₂

INDUSTRY APPLICATIONS

Dynamic seal applications

Slideways, Compression rings, Bearings for alternating

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