K69
Piston Guide Ring



K69 piston guide rings are guiding elements designed for use in piston applications of hydraulic cylinders. They are manufactured from glass fiber-reinforced thermoplastic material to provide enhanced load-carrying capacity.

Advantages
- High abrasion resistance
- Large dimension range
- Economical solution

Application
- Construction machinery
- Cranes
- Injection moulding machines
- Agricultural machinery
- Light and medium duty cylinders

Operating Conditions

MEDIA TYPE	Mineral oils (DIN 51524)	HFA ve HFB	HFC
TEMPERATURE (°C):	-40/+110 °C	+5/+60 °C	-30/+60 °C
DYNAMIC CONTACT PRESSURE (N/mm²)	≤40 N/mm²		
STATIC CONTACT PRESSURE (N/mm²)	≤100 N/mm²		
SPEED (m/s):	≤1.0 m/s		

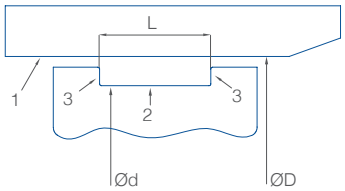
NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.

Material Information

Thermoplastic-PM9902	Standard produced material code

Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. You can refer to Table 2.7 for details or you can contact our sales department.

Surface Roughness



	1 (boru)	2 (groove base)	3 (groove flanks)
Ra	*** µm	≤2.5 µm	≤3.2 µm
Rmax	*** µm	≤10 µm	≤16 µm

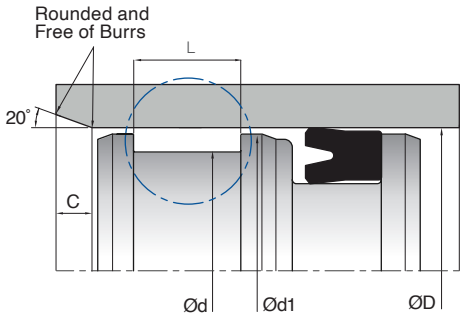
Ra, Rmax values shown as *** µm should be in accordance with the used main sealing element.

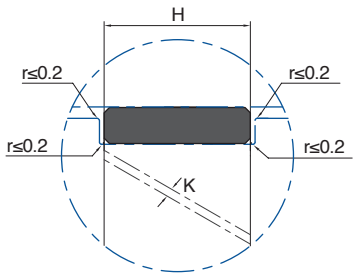
Installation Information

It is recommended to use open grooves for guide rings with an inner diameter of less than 30 mm. Before installation to the rod, make sure that the bearing is seated correctly in its groove. Sealing elements should be oiled with system oil prior to the installation.

NOTE: When designing cylinders, it is recommended that K69 bearings be placed in contact with the fluid, in a way that does not cause dry running. Load bearing capability decreases at increasing temperatures. In order to prevent hydrodynamic pressure, there is a «K» gap on the product.

K69 Piston Guide Ring





KASTAŞ NO	D (H8)	d (h8)	d1 (h9)	L (+0.2/-0)	H	KASTAŞ CODE
K69-020	20	16	19.6	9.6	9.4	10022809
K69-020/1	20	17	19.6	3.2	3	10022811
K69-022	22	18	21.6	9.6	9.4	10022812
K69-025	25	21	24.6	9.7	9.5	10022814
K69-025/1	25	21	24.6	8.2	8	10022815
K69-025/2	25	22	24.6	4.2	4	10022816
K69-030	30	26	29.6	9.7	9.5	10022820
K69-030/1	30	25	29.5	5.6	5.4	10022821
K69-030/2	30	27	29.6	10	9.8	10022822
K69-030/3	30	27	29.6	5	4.8	10022823
K69-032	32	28	31.6	9.7	9.5	10022827
K69-032/1	32	26	31.4	9.9	9.7	10022829
K69-032/2	32	28.9	31.6	4	3.8	10022831
K69-032/3	32	27	31.5	5.6	5.4	10022832
K69-033	33	28	32.5	5.7	5.5	10022833
K69-033/1	33	28	32.5	9.7	9.5	10022834
K69-034	34	28	33.4	9.7	9.5	10022835
K69-035	35	30	34.5	15.2	15	10022836
K69-035/1	35	31	34.6	9.7	9.5	10022837
K69-035/3	35	29	34.4	10	9.8	10022839
K69-035/5	35	30	34.5	9.7	9.5	10022841
K69-035/6	35	30	34.5	5.6	5.4	10022842
K69-040	40	35	39.5	15.2	15	10022847
K69-040/1	40	36	39.6	9.7	9.5	10022848
K69-040/2	40	34	39.4	9.9	9.7	10022850
K69-040/3	40	35	39.5	5.6	5.4	10022851
K69-040/5	40	35	39.5	9.7	9.5	10022854
K69-045	45	40	44.5	15.2	15	10022863
K69-045/1	45	41	44.6	9.7	9.5	10022864
K69-045/2	45	40	44.5	9.7	9.5	10022865
K69-045/3	45	41	44.6	10.2	10	10022866
K69-045/7	45	40	44.5	5.6	5.4	10022870
K69-045/9	45	40	44.5	9.9	9.7	10022872
K69-046	46	41	45.5	5.6	5.4	10022873
K69-046/1	46	40	45.4	13	12.8	10022874
K69-050	50	45	49.5	15.2	15	10022876
K69-050/1	50	44	49.4	9.7	9.5	10022880
K69-050/2	50	45	49.5	9.7	9.5	10022882
K69-050/3	50	45	49.5	5.6	5.4	10022883
K69-050.8	50.8	44.45	50.2	19.25	19.05	10022878
K69-050.8/1	50.8	44.45	50.2	6.55	6.35	10022879
K69-053	53	47	52.4	13	12.8	10022886
K69-055	55	50	54.5	15.2	15	10022887
K69-055/1	55	49	54.4	12.7	12.5	10022888

KASTAŞ NO	D (H8)	d (h8)	d1 (h9)	L (+0.2/-0)	H	KASTAŞ CODE
K69-055/3	55	50	54.5	20.2	20	10022890
K69-055/4	55	50	54.5	9.7	9.5	10022891
K69-055/6	55	49	54.4	9.9	9.7	10022893
K69-055/7	55	51	54.6	10	9.8	10022894
K69-055/8	55	50	54.5	5.6	5.4	10022895
K69-055/9	55	50	54.5	9.9	9.7	10022896
K69-057.15	57.15	50.8	56.55	19.25	19.05	10022898
K69-060	60	55	59.5	15.2	15	10022900
K69-060/1	60	54	59.4	12.7	12.5	10022901
K69-060/2	60	54	59.4	9.5	9.3	10022906
K69-060/3	60	55	59.5	9.7	9.5	10022908
K69-060/4	60	56	59.6	9.8	9.6	10022909
K69-060/5	60	56	59.6	10.2	10	10022910
K69-060/6	60	54	59.4	5.6	5.4	10022911
K69-060/7	60	55	59.5	5.8	5.6	10022912
K69-060/8	60	55	59.5	9.9	9.7	10022913
K69-060/10	60	55	59.5	7.2	7	10022902
K69-060/11	60	55	59.5	13.2	13	10022903
K69-062	62	56	61.4	20.2	20	10022916
K69-062/1	62	56	61.4	9.7	9.5	10022917
K69-063	63	57	62.4	12.7	12.5	10022918
K69-063/1	63	58	62.5	10	9.8	10022919
K69-063/2	63	58	62.5	9.7	9.5	10022922
K69-063/3	63	59	62.6	9.7	9.5	10022923
K69-063/4	63	57	62.4	10	9.8	10022924
K69-063/7	63	57	62.4	9.7	9.5	10022927
K69-065	65	60	64.5	15.2	15	10022931
K69-065/1	65	59	64.4	12.7	12.5	10022932
K69-065/2	65	60	64.5	9.7	9.5	10022936
K69-065/3	65	62	64.6	20	19.8	10022937
K69-065/4	65	60	64.5	5.5	5.3	10022938
K69-065/5	65	60	64.5	8.2	8	10022939
K69-065/7	65	60	64.5	9.9	9.7	10022941
K69-065/8	65	60	64.5	5.7	5.5	10022942
K69-065/9	65	60	64.5	9.5	9.3	10022943
K69-068	68	63	67.5	9.7	9.5	10022946
K69-070	70	65	69.5	15.2	15	10022949
K69-070/1	70	64	69.4	12.7	12.5	10022950
K69-070/2	70	65	69.5	9.7	9.5	10022954
K69-070/3	70	66	69.6	10	9.8	10022955
K69-070/4	70	65	69.5	5.6	5.4	10022956
K69-070/7	70	64	69.4	10.2	10	10022959
K69-070/8	70	65	69.5	7.2	7	10022961
K69-070/9	70	65	69.5	9.9	9.7	10022962
K69-075	75	70	74.5	15.2	15	10022964
K69-075/1	75	69	74.4	12.7	12.5	10022965
K69-075/2	75	70	74.5	9.7	9.5	10022967
K69-075/3	75	70	74.5	5.6	5.4	10022968
K69-075/4	75	70	74.5	30.2	30	10022969
K69-075/6	75	70	74.5	20.2	20	10022971
K69-076.20	76.2	69.85	75.6	19.25	19.05	10022974
K69-080	80	75	79.5	15.2	15	10022977
K69-080/1	80	74	79.4	12.7	12.5	10022978
K69-080/2	80	75	79.5	8.2	8	10022987
K69-080/3	80	75	79.5	9.7	9.5	10022989
K69-080/4	80	76	79.6	15.2	15	10022990

KASTAŞ NO	D (H8)	d (h8)	d1 (h9)	L (+0.2/-0)	H	KASTAŞ CODE
K69-080/6	80	75	79.5	5.6	5.4	10022992
K69-080/7	80	74	79.4	12.2	12	10022993
K69-080/8	80	75	79.5	9.9	9.7	10022994
K69-080/10	80	74	79.4	9.9	9.7	10022981
K69-080/11	80	75	79.5	15	14.8	10022982
K69-080/15	80	76	79.6	9.7	9.5	10022986
K69-083	83	75	82.4	9.7	9.5	10022996
K69-085	85	80	84.5	15.2	15	10022998
K69-085/1	85	79	84.4	12.7	12.5	10022999
K69-085/2	85	80	84.5	9.7	9.5	10023000
K69-085/3	85	80	84.5	20	19.8	10023001
K69-085/5	85	80	84.5	9.9	9.7	10023003
K69-085/6	85	77	84.4	19.9	19.7	10023004
K69-090	90	85	89.5	15.2	15	10023007
K69-090/1	90	84	89.4	12.7	12.5	10023008
K69-090/2	90	85	89.5	5.7	5.5	10023011
K69-090/3	90	85	89.5	9.9	9.7	10023012
K69-090/4	90	85	89.5	9.7	9.5	10023013
K69-090/5	90	84	89.4	25	24.8	10023014
K69-090/6	90	85	89.5	15	14.8	10023015
K69-090/7	90	84	89.4	15.2	15	10023016
K69-095	95	90	94.5	15.2	15	10023021
K69-095/1	95	89	94.4	12.7	12.5	10023022
K69-095/2	95	90	94.5	9.7	9.5	10023023
K69-095/3	95	90	94.5	9.9	9.7	10023024
K69-095/4	95	90	94.5	9.5	9.3	10023025
K69-096/3	95	90	94.5	12.8	12.6	10023030
K69-100	100	95	99.5	15.2	15	10023032
K69-100/1	100	94	99.4	12.7	12.5	10023033
K69-100/2	100	95	99.5	5.6	5.4	10023038
K69-100/3	100	96	99.6	10.2	10	10023040
K69-100/4	100	94	99.4	13	12.8	10023041
K69-100/5	100	95	99.5	9.7	9.5	10023042
K69-100/7	100	95	99.5	15	14.8	10023044
K69-100/10	100	95	99.5	9.5	9.3	10023035
K69-105	105	100	104.5	15.2	15	10023048
K69-105/2	105	100	104.5	9.9	9.7	10023050
K69-105/5	105	99	104.4	15	14.8	10023053
K69-110	110	104	109.4	12.7	12.5	10023055
K69-110/1	110	105	109.5	9.7	9.5	10023056
K69-110/3	110	104	109.4	10.2	10	10023061
K69-110/6	110	105	109.5	15	14.8	10023063
K69-110/10	110	105	109.5	9.5	9.3	10023057
K69-115	115	109	114.4	12.7	12.5	10023066
K69-115/1	115	110	114.5	9.7	9.5	10023067
K69-115/5	115	110	114.5	9.5	9.3	10023071
K69-115/6	115	110	114.5	15	14.8	10023072
K69-115/7	115	109	114.4	19.2	19	10023073
K69-120	120	114	119.4	12.7	12.5	10023076
K69-120/1	120	115	119.5	15.2	15	10023077
K69-120/2	120	115	119.5	9.7	9.5	10023078
K69-120/4	120	114	119.4	15	14.8	10023080
K69-120/5	120	115	119.5	9.5	9.3	10023081
K69-125	125	120	124.5	15.2	15	10023082
K69-125/1	125	119	124.4	12.7	12.5	10023083
K69-125/2	125	120	124.5	9.7	9.5	10023085

KASTAŞ NO	D (H8)	d (h8)	d1 (h9)	L (+0.2/-0)	H	KASTAŞ CODE
K69-125/4	125	119	124.4	15.2	15	10023086
K69-125/8	125	121	124.6	10	9.8	10023089
K69-125/9	125	120	124.5	9.5	9.3	10023090
K69-130	130	124	129.4	12.7	12.5	10023091
K69-130/1	130	125	129.5	15.2	15	10023092
K69-130/4	130	125	129.5	9.9	9.7	10023095
K69-135	135	130	134.5	15.2	15	10023098
K69-135/2	135	130	134.5	12.5	12.3	10023100
K69-135/3	135	128	134.4	25	24.8	10023101
K69-135/4	135	129	134.4	19.2	19	10023102
K69-140	140	134	139.4	12.7	12.5	10023104
K69-140/1	140	135	139.5	9.7	9.5	10023105
K69-140/2	140	135	139.5	15.2	15	10023106
K69-140/3	140	133	139.4	15.2	15	10023107
K69-140/4	140	133	139.4	20	19.8	10023108
K69-140/8	140	135	139.5	15	14.8	10023112
K69-145	145	140	144.5	15.2	15	10023113
K69-150	150	144	149.4	12.7	12.5	10023117
K69-150/1	150	144	149.4	19.2	19	10023118
K69-150/2	150	145	149.5	9.7	9.5	10023119
K69-150/3	150	146	149.6	10.2	10	10023120
K69-150/4	150	143	149.4	20	19.8	10023121
K69-150/5	150	145	149.5	9.5	9.3	10023122
K69-150/6	150	145	149.5	15.2	15	10023123
K69-160	160	155	159.5	15.2	15	10023129
K69-160/1	160	154	159.4	19.2	19	10023130
K69-160/2	160	155	159.5	9.7	9.5	10023131
K69-165	165	160	164.5	15.2	15	10023135
K69-170	170	165	169.5	15.2	15	10023139
K69-175	175	170	174.5	15.2	15	10023141
K69-180	180	174	179.4	19.2	19	10023143
K69-180/1	180	175	179.5	9.7	9.5	10023144
K69-185	185	180	184.5	15.2	15	10023146
K69-190	190	185	189.5	15.2	15	10023147
K69-190/1	190	182	189.4	24.7	24.5	10023148
K69-195	195	190	194.5	15.2	15	10023149
K69-200	200	194	199.4	19.2	19	10023150
K69-200/1	200	195	199.5	15.2	15	10023151
K69-210	210	205	209.5	9.9	9.7	10023154
K69-220	220	214	219.4	19.2	19	10023155
K69-225	225	219	224.4	19.2	19	10023156
K69-250	250	244	249.4	19.2	19	10023159