

K81

Back-up Ring



K81 back-up rings are sealing elements typically used behind O-rings to ensure system integrity and minimize extrusion gaps in various applications.

They can be manufactured from different materials using various production methods.

Advantages

- High extrusion resistance
- Long service life

Application

- Agricultural machinery
- Construction machinery
- Loading platforms
- Injection moulding machines
- Forklifts
- Standard industrial cylinders

Operating Conditions

PRESSURE (bar):	400 bar (max)		
TEMPERATURE (°C):	-40/+100 °C	+5/+60 °C	-30/+60 °C
MEDIA TYPE:	Mineral Oils	HFA/HFB	HFC

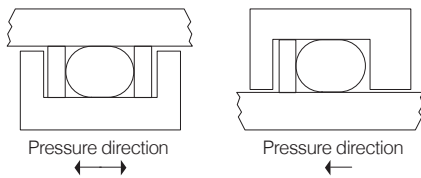
NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.

Material Information

Back-up Ring	Remarks
Termoplastik Elastomer-TP5501	TPE malzemedden standart olarak üretilmektedir.
PTFE/Termoplastik	Back-up ring can be produced from PTFE / Thermoplastic type materials.

Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. You can refer to Table 2.7 and Table 2.8 for details or you can contact our sales department.

Akma Boşluğu «S»



A double back-up ring is used when the flow comes from two directions, and a single back-up ring is used when it comes from one direction.

In static studies, o-rings can work at high pressures. It is recommended to use them with back-up ring in cases of 100 bar and above. With the use of a back-up ring, the system is protected against sudden pressure increases and a long working life is provided. It is important to manufacture within H8/f7 tolerances in piston and throat applications to ensure that the extrusion gap remains at low values. For diameters of Ø400 and above, H7 / f7 fit is recommended for static applications.

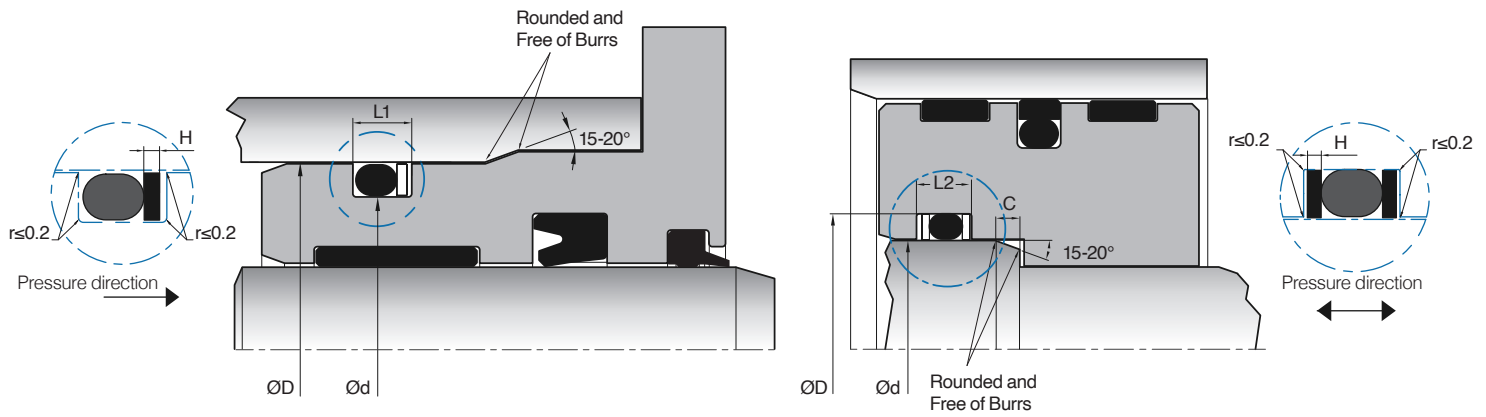
Surface Roughness

	1 (rod)	2 (groove base)	3 (groove flanks)
Ra	0.1-0.8 µm	0.2-1.8 µm	0.2-3 µm
Rmax	< 3.2 µm	< 6.3 µm	< 16 µm

Installation Information

During installation, precautions should be taken with protective apparatuses against the notch damages caused by thread. It should be checked before assembly if the chamfers are proper. It is recommended that the sealing element be lubricated with oil.

K81 Back-up Ring



KASTAŞ NO	d (f7)	D (H8)	H	L1 (+0.2/-0)	L2 (+0.2/-0)	O-Ring d2	KASTAŞ CODE
K81-006	6	12	2	6.5	8.5	3.53	10028658
K81-012	12	16	1.2	4.6	5.8	2.62	10028659
K81-014	14	18	1.3	4.7	6	2.62	10028660
K81-019	19	23	1.3	4.7	6	2.62	10028663
K81-020	20	25	1.3	5.2	6.5	3	10028664
K81-022	22	28	1.5	6	7.5	3.53	10028666
K81-025	25.4	30	1.9	5.8	7.7	3	10028668
K81-025/1	25	30	1.3	5.2	6.5	3	10028669
K81-026	26	30	2	5.4	7.4	2.62	10028671
K81-027	27	32	1.3	5.2	6.5	3	10028672
K81-028	28.2	34.6	1.3	6.5	7.8	4	10028673
K81-029	29.8	35	1	4.9	5.9	3	10028675
K81-030	30	35	1.3	5.2	6.5	3	10028676
K81-034	34.68	39.68	1.75	5.65	7.4	3	10028679
K81-035	35	40	1.3	5.2	6.5	3	10028681
K81-036	36	40.5	1.25	5.15	6.4	3	10028685
K81-036/1	36	40	1.8	5.2	7	2.62	10028686
K81-037	37	42	1.3	5.2	6.5	3	10028687
K81-038	38	43	1.3	5.2	6.5	3	10028688
K81-040	40	45	1.3	5.2	6.5	3	10028690
K81-040/1	40	45	1.9	5.8	7.7	3	10028693
K81-041	41	45.5	1.25	5.15	6.4	3	10028696
K81-043	43	48	1.3	5.2	6.5	3	10028697
K81-043/1	43	50	1.9	7.1	9	4	10028700
K81-044	44.3	50.5	1.3	6.5	7.8	4	10028701
K81-045	45	50	1.3	5.2	6.5	3	10028703
K81-045/4	45	55	1.5	9.3	10.8	6	10028707
K81-046	46	50.5	1.25	5.15	6.4	3	10028709
K81-047	47	52	1.3	5.2	6.5	3	10028710
K81-048	48	54	1.5	6	7.5	3.53	10028712
K81-049	49	55	1.3	5.8	7.1	3.53	10028713
K81-050	50	55	1.3	5.2	6.5	3	10028715
K81-050/2	50	60	1.7	9.1	10.8	5.7	10028719
K81-052	52	60	1.9	8.4	10.3	5	10028722
K81-053	53.7	60	1.9	7.1	9	4	10028723
K81-053/1	53	63	1.7	9.1	10.8	5.7	10028724
K81-055	55	63	1.9	8.4	10.3	5	10028727
K81-055/1	55.7	60	1.3	5.2	6.5	3	10028728
K81-055/2	55.15	61	1.45	5.95	7.4	3.53	10028729
K81-055/4	55	65	1.9	9.7	11.6	6	10028731
K81-055/5	55	60	1.3	5.2	6.5	3	10028732
K81-056	56	60.5	1.3	5.2	6.5	3	10028736



KASTAŞ NO	d (f7)	D (H8)	H	L1 (+0.2/-0)	L2 (+0.2/-0)	O-Ring d2	KASTAŞ CODE
K81-057	57.6	63	2	6.5	8.5	3.53	10028737
K81-057/1	57.7	63.7	1.05	5.55	6.6	3.53	10028738
K81-057/2	57.4	63	1.4	5.9	7.3	3.53	10028739
K81-057/4	57.61	61.97	1.14	5.04	6.18	3	10028741
K81-058	58	63	1.3	5.2	6.5	3	10028743
K81-058/1	58.5	63.5	1.3	5.2	6.5	3	10028745
K81-058/2	58.7	65	1.9	7.1	9	4	10028746
K81-059	59	63.5	1.3	5.2	6.4	3	10028747
K81-060/1	60	70	1.7	9.1	10.8	5.7	10028749
K81-060/2	60	65	1.3	5.2	6.5	3	10028750
K81-062	62	70	1.9	8.4	10.3	5	10028755
K81-062/1	62.2	68	1.3	5.8	7.1	3.53	10028756
K81-063	63.6	70	1.4	6.6	8	4	10028758
K81-064	64	73.3	1.5	8.9	10.4	5.7	10028760
K81-064/1	64.4	70	1.4	5.9	7.3	3.53	10028761
K81-065	65	70	1.3	5.2	6.5	3	10028764
K81-065/1	65	75	1.7	9.1	10.8	5.7	10028767
K81-066	66	70.5	1.3	5.2	6.5	3	10028771
K81-067	67.4	73	1.6	6.1	7.7	3.53	10028773
K81-069	69.8	75	1.3	5.2	6.5	3	10028775
K81-069/2	69.4	75	1.4	5.9	7.3	3.53	10028777
K81-070	70	75	1.3	5.2	6.5	3	10028778
K81-070/1	70	80	1.7	9.1	10.8	5.7	10028781
K81-072	72	80	1.9	8.4	10.3	5	10028785
K81-075	75	80	1.3	5.2	6.5	3	10028790
K81-075/1	75	80.5	1.25	5.15	6.4	3	10028792
K81-075/2	75.6	82	1.9	7.1	9	4	10028793
K81-075/3	75	85	1.9	9.3	11.2	5.7	10028794
K81-075/4	75.4	80	1.4	5.3	6.7	3	10028795
K81-077	77	83	1.5	6	7.5	3.53	10028796
K81-079	79.8	89.1	1.5	8.9	10.4	5.7	10028797
K81-079/1	79.4	85	1.3	5.8	7.1	3.53	10028798
K81-080	80	85	1.3	5.2	6.5	3	10028801
K81-082	82	90	1.9	8.4	10.3	5	10028806
K81-084	84.3	90	1.3	5.8	7.1	3.53	10028808
K81-085	85	90	1.3	5.2	6.5	3	10028809
K81-090	90	95	1.3	5.2	6.5	3	10028815
K81-090/1	90	100	1.7	9.1	10.8	5.7	10028818
K81-091	91	96.4	1.3	5.8	7.1	3.53	10028823
K81-092	92	100	1.9	8.4	10.3	5	10028824
K81-095	95	100	1.3	5.2	6.5	3	10028828
K81-100	100	110	1.7	9.1	10.8	5.7	10028834
K81-100/1	100	108.2	1.9	8.4	10.3	5	10028837
K81-100/2	100.6	110	1.7	9.1	10.8	5.7	10028838
K81-100/3	100.2	105	1.4	5.3	6.7	3	10028839
K81-102	102	110	1.9	8.4	10.3	5	10028840
K81-105	105	110	1.3	5.2	6.5	3	10028841
K81-107	107	115	1.9	8.4	10.3	5	10028843
K81-108	108	114	1.5	6	7.5	3.53	10028844
K81-109	109	118.3	1.87	9.27	11.14	5.7	10028845
K81-110	110	115	1.3	5.2	6.5	3	10028846
K81-110/1	110	120	1.7	9.1	10.8	5.7	10028849
K81-110/2	110	120	1.9	9.3	11.2	5.7	10028852
K81-112	112	120	1.9	8.4	10.3	5	10028853
K81-114	114.8	125	2	9.8	11.8	6	10028854
K81-115	115	125	1.7	9.1	10.8	5.7	10028855



KASTAŞ NO	d (f7)	D (H8)	H	L1 (+0.2/-0)	L2 (+0.2/-0)	O-Ring d2	KASTAŞ CODE
K81-115/1	115	124.3	1.5	8.9	10.4	5.7	10028858
K81-115/2	115	125	1.9	9.3	11.2	5.7	10028859
K81-115/3	115	121.2	1.22	6.42	7.64	4	10028860
K81-117	117	125	1.9	8.4	10.3	5	10028861
K81-118	118.2	127.5	1.5	8.9	10.4	5.7	10028862
K81-120	120	125	1.3	5.2	6.5	3	10028863
K81-120/1	120	130	1.7	9.1	10.8	5.7	10028866
K81-122	122	130	1.9	8.4	10.3	5	10028870
K81-125	125	135	1.9	9.3	11.2	5.7	10028871
K81-130	130	140	1.7	9.1	10.8	5.7	10028872
K81-130/1	130.7	140	1.9	9.3	11.2	5.7	10028874
K81-135	135	140	1.25	5.15	6.4	3	10028877
K81-137	137.8	149.8	2.45	11.6	14.1	6.99	10028878
K81-138	138.4	150	2.5	11.6	14.1	6.99	10028880
K81-140	140	150	1.7	9.1	10.8	5.7	10028881
K81-145	145	160	2.1	13	15.1	8.4	10028885
K81-150	150.7	160	1.9	9.3	11.2	5.7	10028889
K81-150/1	150	160	1.7	9.1	10.8	5.7	10028890
K81-151	151	160	1.9	8.8	10.7	5.33	10028892
K81-153	153.3	165	2	11.1	13.1	6.99	10028893
K81-155	155	170	2.1	13	15.1	8.4	10028894
K81-155/1	155	165	1.7	9.1	10.8	5.7	10028897
K81-156	156.12	170	2.5	12.9	15.4	8	10028899
K81-158	158.4	170	2.5	11.6	14.1	6.99	10028900
K81-161	161.8	170	1.9	8.4	10.3	5	10028902
K81-165	165	180	2.1	13	15.1	8.4	10028903
K81-170	170.7	180	1.9	9.3	11.2	5.7	10028907
K81-175	175	190	2.1	13	15.1	8.4	10028909
K81-181	181.8	190	1.9	8.4	10.3	5	10028913
K81-187	187.4	200	2	12.9	14.9	8.4	10028916
K81-188	188.4	200	2.5	11.6	14.1	6.99	10028917
K81-190	190.7	200	1.9	9.3	11.2	5.7	10028918
K81-192	192.6	202	1.9	9.3	11.2	5.7	10028919
K81-198	198.4	210	2.5	11.6	14.1	6.99	10028923
K81-201	201.8	210	1.9	8.4	10.3	5	10028924
K81-205	205.7	215	1.9	9.3	11.2	5.7	10028925
K81-210	210.7	220	1.9	9.3	11.2	5.7	10028926
K81-220	220.7	230	1.9	9.3	11.2	5.7	10028929
K81-228	228.4	240	2.5	11.6	14.1	6.99	10028933
K81-235	235	250	2.05	13	15.1	8.4	10028934
K81-240	240.7	250	1.9	9.3	11.2	5.7	10028935
K81-241	241.8	250	1.9	8.4	10.3	5	10028936
K81-245	245	260	2.05	13	15.1	8.4	10028937
K81-260	260.7	270	1.9	9.3	11.2	5.7	10028939
K81-266	266	280	2.5	13.4	15.9	8.4	10028941
K81-290	290.7	300	1.9	9.3	11.2	5.7	10028942
K81-295	295.7	305	1.9	9.3	11.2	5.7	10028943
K81-316	316	330	2.5	13.4	15.9	8.4	10028944