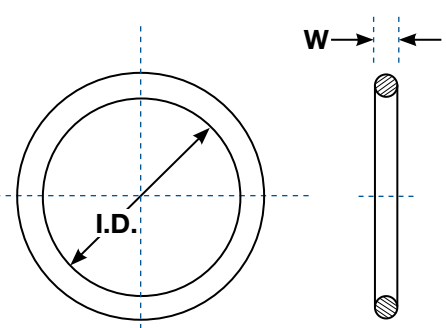


# O-Rings



Size*	Dimensions		Pkg. Qty.	Viton® Cat. No.	Silicone Cat. No.	Buna-N Cat. No.	FETFE® Cat. No.	EPDM Cat. No.	Pkg. Qty.	Chemraz® Cat. No.	CAPFE™ Cat. No.
	I.D.,mm	W.									
-006	2.6	1.78	12	89060-596	89060-636	89060-786	89060-952	—	1	89061-258	—
-007	2.9	1.78	12	89060-598	89060-638	89060-788	89060-954	—	1	89061-260	—
-008	3.7	1.78	12	89060-602	89060-642	89060-792	89060-958	89061-180	1	89061-264	—
-009	4.5	1.78	12	89060-608	89060-648	89060-798	89060-964	—	1	89061-270	—
-010	5.3	1.78	12	89060-604	89060-644	89060-794	89060-960	—	1	89061-266	89061-080
-011	6.1	1.78	12	89060-606	89060-646	89060-796	89060-962	89061-182	1	89061-268	89061-082
-012	7.7	1.78	12	89060-610	89060-650	89060-800	89060-966	89061-184	1	89061-272	89061-084
-013	9.2	1.78	12	89060-614	89060-656	89060-804	89060-972	89061-186	1	89061-274	89061-086
014	10.8	1.78	12	89060-618	89060-660	89060-808	89060-976	89061-188	1	89061-278	—
-015	12.4	1.78	12	89060-620	89060-662	89060-810	89060-978	—	1	89061-280	89061-088
-016	14.0	1.78	12	89060-622	89060-664	89060-812	89060-980	89061-190	1	89061-282	—
-018	17.7	1.78	12	89060-624	89060-666	89060-814	89060-982	—	1	89061-284	89061-090
-021	22.0	1.78	12	89060-632	89060-674	89060-822	89060-990	—	1	89061-292	89061-098
-022	23.5	1.78	12	89060-628	89060-670	89060-818	89060-986	—	1	89061-288	89061-094
-105	3.6	2.6	12	89060-600	89060-640	89060-790	89060-956	—	1	89061-262	—
-107	5.2	2.6	12	89060-612	89060-652	89060-802	89060-968	—	—	—	—
-108	6.0	2.6	12	89060-616	89060-658	89060-806	89060-974	—	1	89061-276	—
-110	9.2	2.6	12	89060-626	89060-668	89060-816	89060-984	89061-192	1	89061-286	89061-092
-111	10.8	2.6	12	89060-630	89060-672	89060-820	89060-988	—	1	89061-290	89061-096
-112	12.4	2.6	12	89060-634	89060-678	89060-826	89060-994	—	1	89061-294	89061-102
-113	13.9	2.6	12	89060-654	89060-680	89060-828	89060-996	—	1	89061-296	89061-104
-114	15.5	2.6	12	89060-676	89060-682	89060-830	89060-998	89061-194	1	89061-298	89061-106
-115	17.1	2.6	12	89060-706	89060-684	89060-832	89061-000	—	1	89061-300	89061-108
-116	18.7	2.6	12	89060-728	89060-686	89060-834	89061-002	89061-196	1	89061-302	89061-110
-118	21.9	2.6	12	89060-950	89060-738	89060-878	89061-052	—	1	89061-338	89061-146
-121	26.6	2.6	12	89060-736	89060-688	89060-836	89061-004	89061-198	1	89061-304	89061-112
-122	28.2	2.6	6	89060-970	89060-740	89060-880	89061-054	—	1	89061-340	89061-148
-123	29.8	2.6	6	89060-756	89060-690	89060-838	89061-006	89061-200	1	89061-306	89061-114
-125	33.0	2.6	6	89060-992	89060-742	89060-882	89061-056	—	1	89061-342	89061-150
-127	36.2	2.6	6	89061-044	89060-750	89060-890	89061-064	—	1	89061-350	89061-158
-128	37.8	2.6	6	89061-010	89060-744	89060-884	89061-058	—	1	89061-344	89061-152
-136	50.5	2.6	6	89060-768	89060-692	89060-840	89061-008	89061-202	1	89061-308	89061-116
-210	18.6	3.5	6	89060-770	89060-694	89060-842	89061-012	89061-204	1	89061-310	89061-118
-211	20.2	3.5	6	89060-774	89060-696	89060-844	89061-014	89061-206	1	89061-312	89061-120
-212	21.8	3.5	6	89060-776	89060-698	89060-846	89061-016	89061-208	1	89061-314	89061-122
-213	23.4	3.5	6	89060-778	89060-700	89060-848	89061-018	—	1	89061-316	—
-214	25.0	3.5	6	89060-780	89060-702	89060-850	89061-020	89061-210	1	89061-318	89061-124
-216	28.2	3.5	6	89060-782	89060-704	89060-852	89061-022	89061-212	1	89061-320	—
-217	29.7	3.5	6	89060-784	89060-708	89060-856	89061-026	—	1	89061-322	89061-126
-220	34.5	3.5	6	89060-824	89060-710	89060-858	89061-028	89061-214	1	89061-324	89061-128
-223	40.9	3.5	3	89061-024	89060-746	89060-886	89061-060	—	1	89061-346	89061-154
-225	47.2	3.5	3	89060-854	89060-712	89060-860	89061-030	89061-216	1	89061-326	89061-130
-226	50.4	3.5	3	89060-874	89060-716	89060-864	89061-034	89061-218	1	89061-330	89061-134
-227	53.6	3.5	3	89060-870	89060-714	89060-862	89061-032	—	1	89061-328	89061-132
-228	56.7	3.5	3	89060-876	89060-718	89060-866	89061-036	—	1	89061-332	89061-136
-229	59.9	3.5	3	89060-892	89060-720	89060-868	89061-038	89061-220	1	89061-334	89061-138
-230	63.1	3.5	3	89061-040	89060-748	89060-888	89061-062	89061-222	1	89061-348	89061-156
-232	69.4	3.5	3	—	—	—	—	—	1	—	89061-160
-233	72.6	3.5	3	—	—	—	89084-356	—	—	—	—
-235	79.0	3.5	3	89060-938	89060-732	—	89061-046	—	1	—	89061-144
-317	23.2	5.3	—	—	—	—	—	—	1	—	89084-358
-327	43.8	5.3	3	—	89060-754	—	—	—	1	89061-352	—
-329	50.2	5.3	3	—	89060-760	—	89061-072	—	1	—	89061-170
-336	72.4	5.3	3	89061-100	89060-758	—	89061-070	—	—	—	—
-338	78.7	5.3	3	89061-050	89060-752	—	89061-066	—	—	—	—
-341	88.3	5.3	3	89060-894	89060-722	89060-872	89061-042	—	1	89061-336	89061-140
-343	94.6	5.3	3	89060-948	89060-734	—	89061-048	—	—	—	—
-348	110.5	5.3	3	89061-076	—	—	89061-068	—	1	89061-354	89061-164
-349	113.7	5.3	3	—	89060-762	—	89061-074	—	1	—	89061-176
-359	145.4	5.3	—	—	89060-766	—	—	—	1	—	89061-178
-361	151.8	5.3	—	—	—	—	—	—	1	—	89061-142
5-101	2.5	0.97	12	89061-078	—	—	—	—	—	—	—
—	75.5	4.0	1	—	71000-160	—	—	—	1	—	89061-162
—	110.0	5.0	1	—	71000-162	—	—	—	1	—	89061-166
—	150.0	5.0	1	—	71000-164	—	—	—	1	—	89061-168
—	215.0	5.0	1	—	71000-166	—	—	—	1	—	89061-172
O-Ring Sets — one box of 18 sets	—	—	—	—	—	—	89062-502	—	—	—	—
O-Ring Sets — one box of 18 sets	—	—	—	—	—	—	89062-504	—	—	—	—
O-Ring Sets — one box of 12 sets	—	—	—	—	—	—	89062-506	—	—	—	—
O-Ring Sets — one box of 6 sets	—	—	—	—	—	—	89062-508	—	—	—	—

\*Sizes not listed are available via special order. Call or email for quotation.

## CHEMICAL COMPATIBILITY CHART

Key: 1=Recommended; 2=Satisfactory; 3=Poor; 4=Marginal; 5=Not Recommended; A=Acceptable; NA=Not Acceptable

	Viton	Silicone	Buna-N	EPDM	Chemraz 514	FETFE	CAPFE
Temperature Range °C	-26 to 204	-62 to 204	-37 to 121	-54 to 149	-30 to 220	-18 to 204	-60 to 204
Compression set	2	2	2	2	2	2	3
Durometer	75	70	70	70	70	70	70
Steam < 120 °C	3	4	4	4	1	1	5
Acetone	4	3	3	2	1	5	1
Toluene	2	3	3	3	1	2	2
Tetrachloroethane	1	3	3	3	1	1	2
THF	4	4	4	4	1	5	3
Methyl Ethyl Ketone	5	5	5	2	1	5	2
Acetonitrile	5	5	5	5	1	5	2
Hydrochloric Acid (conc)	2	5	4	5	1	2	4
Ammonia Gas (cold)	4	1	2	2	1	4	2
Tetrachloroethylene	3	5	3	3	1	3	2
Sulfuric Acid (dilute)	2	5	1	5	2	2	2
Nitric Acid (conc)	2	5	4	5	1	2	4
Calcium Carbonate	2	5	1	1	1	2	2
Xylene	2	4	4	3	1	2	2
Mineral Oils	1	2	1	4	1	1	1
Sodium Carbonate	1	1	1	1	1	1	2
Vacuum	1	4	2	4	4	1	2
FDA	A	A	A	A	NA	NA	A

Chemical compatibility information courtesy of the respective manufacturers of each o-ring type. Ace is not responsible for errors.

### Viton®<sup>1</sup> A

This class of elastomers is a family comprised of linear co-polymer of vinylidene fluoride and hexafluoropropylene. Fluorine content is between 66 to 70%. Generally black in color, and with generally good temperature and chemical resistance.

### Buna-N

Also known as Nitrile rubber, is a synthetic blended rubber, co-polymer of acrylonitrile and butadiene. Generally resistant to fuels and oils. Generally black or brown in color.

### CAPFE™

An ACE exclusive o-ring with a resilient rubber core encased in a thick, non-porous FEP/PTFE encapsulation. Excellent compression set with excellent chemical compatibility. Low gas and water permeability.

### Chemraz®<sup>3</sup>

A white perfluoroelastomer compound with high temperature and chemical resistance. Has all the properties and inertness of PTFE. Great for Pharmaceutical or food applications where high purity is a must.

### EPDM

This is a type of synthetic rubber of ethylene-propylene also referred to as EPDM; E = ethylene, P = propylene, D = diene and M refers to monomer or M-class rubber, (ASTM D1418). Good soft general seal with wide applications and good compression set. Can be green, brown or black in color. USP Class VI material.

### FETFE®<sup>2</sup>

An ACE exclusive compound which is a fluoroelastomer with TFE additives. It has good compression set along with excellent temperature and chemical compatibility. Generally black or white in color. USP Class VI material.

### Silicone

Is a "rubber-like" compound of silicone, (itself a polymer) containing silicon with carbon, hydrogen and oxygen. It is non-reactive and stable with good temperature resistance. Generally red in color and has excellent compression set. USP Class VI material.

<sup>1</sup>Registered Trademark of E.I. DuPont & Co.

<sup>2</sup>Registered Trademark of Ace Glass, Inc.

<sup>3</sup>Registered Trademark of Green, Tweed & Co.



## CROSS REFERENCES — ACE GLASS

Ace-Thred Size	CORRESPONDING O-RING SIZES FOR:		
	PTFE/Nylon Bushings O-Ring Size	PTFE Plug/Front Seal O-Ring Size	PTFE Plug/Back Seal O-Ring Size
#7	-008	-009	-014
#11	-012	-012	-114
#15	-110	-110	-210
#18	-112	-113	-212
#25	-212	-212	-220
#36	-217	-125	-223
#50	-225	-225	-229
#80	-336	-235	-343

Ace-Safe Connection Sizes	to	Ace Corresponding O-Ring Size
#7 Hose Connection		-009
#11 Hose Connection		-011
#15 Hose Connection		-013
#25 Hose Connection		-118

Ace Glass Std Taper Joint Size	to	Corresponding O-Ring Size
14/10, 14/35 or 14/20		-012
19/22 or 19		