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# Full Ceramic Bearings



*ceramicspeed*

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Bearings dedicated to extreme high temperatures with notable hardness, low friction coefficient, lightweight nature, and exceptional resistance to corrosion and chemicals.

CeramicSpeed Full Ceramic Bearings are specifically engineered for use in extremely high-temperature environments, offering outstanding hardness, a low friction coefficient, lightweight characteristics, and exceptional resistance to corrosion and chemicals.

CeramicSpeed's full ceramic bearings are meticulously crafted, featuring Zirconium dioxide (ZrO<sub>2</sub>) bearing rings. Zirconium dioxide is an exceptionally tough ceramic material with heat expansion properties closely resembling those of steel, simplifying the design of shaft- and housing fits.

Notably, the bearings are fitted with superior Silicon Nitride balls that boast the highest achievable surface finish and roundness. This combination of Zirconium rings and silicon nitride balls results in a bearing solution with a low friction coefficient, reduced mass, and remarkable resistance to water, chemicals, and other aggressive media, presenting clear advantages over traditional steel bearings.

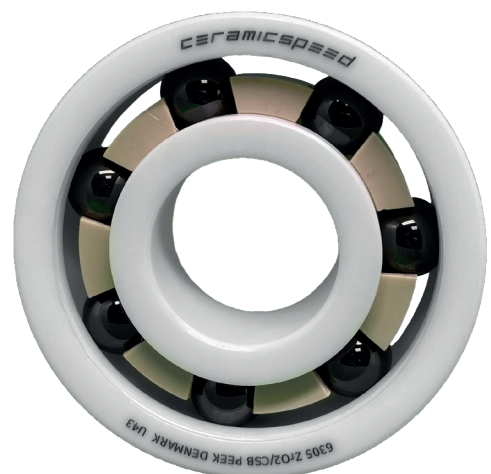
Whether applied in maritime, aerospace, or high-temperature environments, CeramicSpeed's Full Ceramic Bearings stand out as reliable, efficient, and long-lasting components. Their durability and performance make them a preferred choice for various industries, ensuring optimal functionality in demanding applications.

## Advantages of CeramicSpeed full ceramic bearings

- None corrosive: will survive submerged in water or other aggressive media
- Heat resistant: Can run in temperatures beyond the possible for steel bearings
- Low friction: Will survive running with no or very little lubrication
- Non conductive and non magnetic: Will not influence electrical sensors or circuit

### Technical Highlights

- Inner & Outer Rings: Zirconium Oxide (ZrO<sub>2</sub>)
- Balls: Si<sub>3</sub>N<sub>4</sub> Ceramic Silicon Nitride
- Cage: PTFE (PEEK on request)
- Clearance: CN, (C3, C4 on request)
- Seals: None, (PEEK/PTFE shields on request)



Dimension (mm)			Designation	Load Rating Static C0 [kN]	Load Rating Dynamic C [kN]	Limiting Speed RPM
d	D	B				
10	19	5	Xtreme 010 61800 ZrO2/CSB PTFE	0,51	0,24	32.400
10	22	6	Xtreme 010 61900 ZrO2/CSB PTFE	0,81	0,39	28.800
10	26	8	Xtreme 010 6000 ZrO2/CSB PTFE	1,43	0,74	18.000
10	30	9	Xtreme 010 6200 ZrO2/CSB PTFE	1,62	0,89	14.400
10	35	11	Xtreme 010 6300 ZrO2/CSB PTFE	2,56	1,28	13.200
12	21	5	Xtreme 012 61801 ZrO2/CSB PTFE	0,57	0,30	30.000
12	24	6	Xtreme 012 61901 ZrO2/CSB PTFE	0,87	0,45	27.000
12	28	8	Xtreme 012 6001 ZrO2/CSB PTFE	1,62	0,89	16.800
12	32	10	Xtreme 012 6201 ZrO2/CSB PTFE	2,18	1,16	13.200
12	37	12	Xtreme 012 6301 ZrO2/CSB PTFE	3,03	1,56	12.000
15	24	5	Xtreme 015 61802 ZrO2/CSB PTFE	0,60	0,39	27.000
15	28	7	Xtreme 015 61902 ZrO2/CSB PTFE	1,29	0,69	22.800
15	32	9	Xtreme 015 6002 ZrO2/CSB PTFE	1,76	1,07	14.400
15	35	11	Xtreme 015 6202 ZrO2/CSB PTFE	2,42	1,41	12.000
15	42	16	Xtreme 015 6302 ZrO2/CSB PTFE	3,57	2,03	10.200
17	26	5	Xtreme 017 61803 ZrO2/CSB PTFE	0,66	0,45	24.900
17	30	7	Xtreme 017 61903 ZrO2/CSB PTFE	1,38	0,78	20.700
17	35	10	Xtreme 017 6003 ZrO2/CSB PTFE	1,91	1,22	13.200
17	40	12	Xtreme 017 6203 ZrO2/CSB PTFE	2,99	1,78	10.200
17	47	14	Xtreme 017 6303 ZrO2/CSB PTFE	4,29	2,44	9.000
20	32	7	Xtreme 020 61804 ZrO2/CSB PTFE	1,20	0,75	20.100
20	37	9	Xtreme 020 61904 ZrO2/CSB PTFE	1,92	1,11	17.100
20	42	12	Xtreme 020 6004 ZrO2/CSB PTFE	2,99	1,88	10.800
20	47	14	Xtreme 020 6204 ZrO2/CSB PTFE	4,05	2,46	9.000
20	52	15	Xtreme 020 6304 ZrO2/CSB PTFE	5,04	2,93	8.400
25	37	7	Xtreme 025 61805 ZrO2/CSB PTFE	1,29	0,87	16.800
25	42	9	Xtreme 025 61905 ZrO2/CSB PTFE	2,10	1,38	14.520
25	47	12	Xtreme 025 6005 ZrO2/CSB PTFE	3,57	2,46	9.000
25	52	15	Xtreme 025 6205 ZrO2/CSB PTFE	4,44	2,93	7.800
25	62	17	Xtreme 025 6305 ZrO2/CSB PTFE	7,02	4,35	6.600
30	42	7	Xtreme 030 61806 ZrO2/CSB PTFE	1,35	1,02	14.700
30	47	9	Xtreme 030 61906 ZrO2/CSB PTFE	2,16	1,50	13.020
30	55	13	Xtreme 030 6006 ZrO2/CSB PTFE	4,14	3,11	7.800
30	62	16	Xtreme 030 6206 ZrO2/CSB PTFE	6,09	4,20	6.600
35	62	14	Xtreme 035 6007 ZrO2/CSB PTFE	5,04	3,84	6.600
35	72	17	Xtreme 035 6207 ZrO2/CSB PTFE	8,10	5,74	5.700
40	68	15	Xtreme 040 6008 ZrO2/CSB PTFE	5,34	4,13	6.000

Dimension (mm)			Designation	Load Rating Static C0 [kN]	Load Rating Dynamic C [kN]	Limiting Speed
d	D	B				
40	80	18	Xtreme 040 6208 ZrO2/CSB PTFE	9,75	7,13	5.100
45	75	16	Xtreme 045 6009 ZrO2/CSB PTFE	6,63	5,48	5.400
45	85	19	Xtreme 045 6209 ZrO2/CSB PTFE	10,53	8,10	4.500