InnTec Bearing

HIGH-PRECISON BEARINGS

HOCHPRÄZISIONSWÄLZLAGER

Angular contact ball bearings

SCHRÄGKUGELLAGER

HIGH-PRECISON BEARINGS

InnTec precision bearings consist of high-precison deep groove ball bearings, high precision single row and double row angular contact ball bearings and high-precison cylindrical roller bearings. They are applied in Machine tools, machine tool spindles, compressors, pumps, precision motors, etc, all of which demand reliability, operating precision and revolution speed in single or combination use.

InnTec precision bearings are often used in machine tool spindles. Spindles are made to take on different processes. For instance, high precision angular contact ball bearings and cylindrical roller bearings are applied in lathes that cut metal with a lower speed against a heavy load. Cylindrical roller bearings bear a great radial load and are also used in conditions demanding high runout precision and high revolution speed.

Angular contact ball bearings are also applied in machine tool spindles that demand high running precision and high revolution speed.

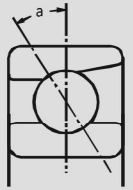
FEATURES

-- High Quality Steel - Ultra clean steel to extend bearing life by up to 80%.
-- High Grade Balls - Quiet and smooth operation even at high speed.
-- Super Finished Raceways - Specially honed to minimise noise and improve lubricant distribution and life.
-- Cages - Available in a range of Polyamide, steel and brass cage assemblies.
-- Advanced Grease Technology - LXB lubricants that can extend grease life and performance.

InnTec Bearing

Angular contact ball bearings

Contact angle



Bearing series	Stamped steel cage	brass cage
79A5 , C	-	7900~7940
70A	7000~7018	7019~7040
70C	-	7000~7022
72A , B	7200~7222	7224~7240
72C	-	7200~7240
73A , B	7300~7320	7321~7340

The same size bearing has its viriants when different cages are used, leading to a change in ball numbers and load ratings also. Please refer to dimensions table for all these specifications.

Angular contact ball bearings with a contact angle at 30° (with a C in bearing reference number) and a contact angle at 25° (with an A in bearing reference number) are used in high precison and high revolution speed conditions Their cages are made of brass, synthetic resin or polyamide. Bearings with a poliamide cage can work in a temperature up to 120 °C.

FEATURES

SINGLE-ROW ANGULAR CONTACT BALL BEARINGS

Since these bearings have a contact angle, they can sustain significant axial loads in one direction together with radial loads. Because of their design, when a radial load is applied, an axial force component is produced; therefore, two opposed bearings or a combination of more than two must be used. Since the rigidity of single-row angular contact ball bearings can be increased by preloading, they are often used in the main spindles of machine tools, for which high running accuracy is required. Usually, the cages for angular contact ball bearings with a contact angle of 30? (Symbol A) or 40? (Symbol B) are in accordance with Table Bearing Series and Cage Types, but depending on the application, machined synthetic resin cages or molded polyamide resin cages are also used. The basic load ratings given in the bearing tables are based on the cage classification listed in Table Bearing Series and Cage Types.

FEATURES

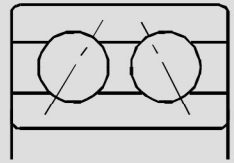
MATCHED ANGULAR CONTACT BALL BEARINGS

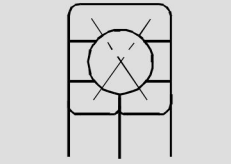
Matched angular contact ball bearings with precision better than P5 are often used in the main spindles of machine tools by preloading. Internal clearances are adjusted before a suitable preload is selected among extra light, light, medium and heavy preloads. The clearance of (or preload) of matched bearings are obtained by axially tightening a pair of bearings till the side faces of their inner or outer rings are pressed against each other.

Double-row Angular Contact Ball Bearings
Pleased consult with LXB beforehand.

LIMITING SPEEDS

In cases of single-row and matched angular contact ball bearings, the Limiting speeds listed in the bearing table are for bearings with machined cage. For those with
pressed cages, the listed speeds must be reduced by 20%.
The limiting speeds of bearings with contact angles of 15?(Symbol C) and 25? (Symbol A) are for bearings with precision of P5 and better (with machined
synthetic-resin cages or molded polyamide cages).
The limiting speeds listed in the bearing tables should be adjusted depending on the
bearing load conditions. Also, higher speeds are attainable by making changes in the
lubrication method, cage design, etc.





HIGH-PRECISON BEARINGS

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Angular contact ball bearings

DOUBLE-ROW ANGULAR CONTACT BALL BEARINGS

This is basically a back-to-back mounting of two single-row angular contact ball bearings, but their inner and outer rings are each integrated into one. Axial loads in both directions can be sustained, and the capacity to sustain moments is good. This type is used as fixed-end bearings. Their cages are pressed steel.

FOUR-POINT CONTACT BALL BEARINGS

The inner ring is split radially into two pieces. Their design allows one bearing to sustain significant axial loads in either direction. The contact angle is 35?, so the axial load capacity is high. This type is suitable for carrying pure axial loads or combined loads where the axial loads are high. The cages are made of machined brass.

PRECAUTIONS FOR USE OF ANGULAR CONTACT BALL BEARINGS

Under severe operating conditions where the speed and temperature are close to their limits, lubrication is marginal, vibration and moment loads are heavy, they may not be suitable, particularly for certain types of cages. In such a case, please consult with LXB beforehand.

And if the load on angular contact ball bearings becomes too small, or if the ratio of the axial and radial loads for matched bearings exceeds 'e' (e is listed in the bearings tables) during operation, slippage occurs between the balls
and raceways, which may result in smearing. Especially with large bearings since the weight of the balls and cage is high. If such load conditions are expected, please consult with LXB for selection of the bearings.

BEARING PRECISION GRADE

Precision grade and super high precision gade refer to standards higher than ISO's five grades in terms of tolerances, dimensions and running accuracy as seen in the following table.

	Precision bearing		Super Precision bearing			Remark
ISO492	Noemal	Class6	Class5	Class4	Class2	Britain
JIS B 1514	Class	Class6	Class5	Class4	Class2	Japan
ANSI/ABMA20	ABEC	ABEC3	ABEC5	ABEC7	ABEC9	America
	RBEC	RBEC3	RBEC5	-------	-------	America
DIN620	0	P6	P5	P4	P3	Germany

A COMPARISON OF ATTRIBUTES BETWEEN SILICON NITRIDE AND BEARING STEEL GCR15

Attribute	Code and units		silicon nitride	bearing steel Gcr15
Density	γ[g/mm^3]		3.2	7.8
Coefficient of thermal expansion	α[1/℃]	20～1000℃	3.2×10^{-6}	-
		20～300℃	-	11.8×10^{-6}
elasticity modulus	E[N/mm^2]		3.15×10^5	2.08×10^5
Poisson's ratio	μ		0.26	0.3
hardness	HV10		1700	700
stress intensity	σ_B[N/mm^2]	20℃	700	2400
		1000℃	700	0
fracture toughness	K_{ie}[MN/m$^{1.5}$]		7	25
coefficient of thermal conductivity	λ[W/m℃]		30～40	40～50
resistivity	[Ωmm^2/m]		10^{17}～10^{18}	0.1～1

HIGH-PRECISON BEARINGS

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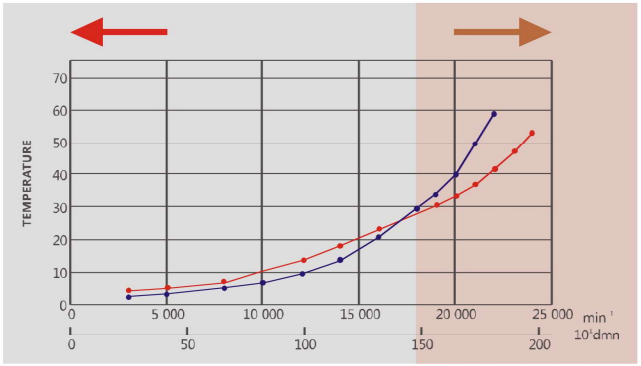
A TEST FOR TWO DIFFERENT CAGES



Cage Ta
Cage Tn1

Bearing 7010ACTA/P4DBA
Preload: 300N
Lubrication: grease
Cage Tn1 has a lower temperature when d, n is under 1.4 million.
revolution speed

MATCHED ANGULAR CONTACT BALL BEARINGS

The types and features of matched angular contact ball bearings are shown in Table 2.

Figure	Arrangement	Features
	Back-to-back (DB) (Example) 7208 A DB	Radial loads and axial loads in both directions can be sustained. Since the distance between the effective load centers a0 is big, this type is suitable if moments are applied.
	Face-to-face (DF) (Example) 7208 B DF	Radial loads and axial loads in both directions can be sustained. Compared with the DB Type, the distance between the effective load centers is small, so the capacity to sustain moments is inferior to the DB Type.
	Tandem (DT) (Example) 7208 A DT	Radial loads and axial loads in one direction can be sustained. Since two bearings share the axial load, this arrangement is used when the load in one direction is heavy.

Dynamic Equivalent Load $P=XF_r+YF_a$

Contact Angle	$\frac{iF_a}{C_{0r}}$	e	Single, DT				DB or DF			
			$F_a/F_r \leqq e$		$F_a/F_r > e$		$F_a/F_r \leqq e$		$F_a/F_r > e$	
			X	Y	X	Y	X	Y	X	Y
15°	0.178	0.38	1	0	0.44	1.47	1	1.65	0.72	2.39
	0.357	0.40	1	0	0.44	1.40	1	1.57	0.72	2.28
	0.714	0.43	1	0	0.44	1.30	1	1.46	0.72	2.11
	1.07	0.46	1	0	0.44	1.23	1	1.38	0.72	2.00
	1.43	0.47	1	0	0.44	1.19	1	1.34	0.72	1.93
	2.14	0.50	1	0	0.44	1.12	1	1.26	0.72	1.82
	3.57	0.55	1	0	0.44	1.02	1	1.14	0.72	1.66
	5.35	0.56	1	0	0.44	1.00	1	1.12	0.72	1.63
25°	-	0.68	1	0	0.41	0.87	1	0.92	0.67	1.41
30°	-	0.80	1	0	0.39	0.76	1	0.78	0.63	1.24
40°	-	1.14	1	0	0.35	0.57	1	0.55	0.57	0.93

*i For i , use 2 for DB, DF and 1 for DT

Static Equivalent Load $P_0=X_0F_r+Y_0F_a$

Contact Angle	Single, DT		DB or DF	
	X_0	Y_0	X_0	Y_0
15°	0.5	0.46	1	0.92
25°	0.5	0.38	1	0.76
30°	0.5	0.33	1	0.66
40°	0.5	0.26	1	0.52

Single or DT mounting When Fr>0.5Fr+Y0Fa use P0=Fr

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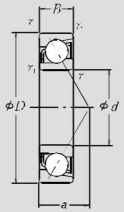
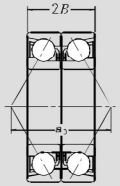
ANGULAR CONTACT BALL BEARINGS

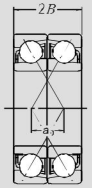
Single



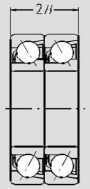
Back-to-Back DB

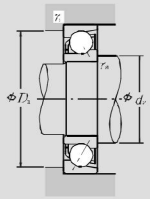


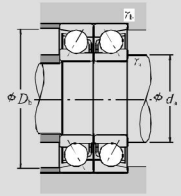
Face-to-Face DF

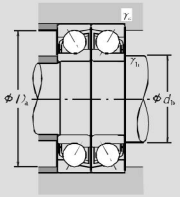


Tandem DT

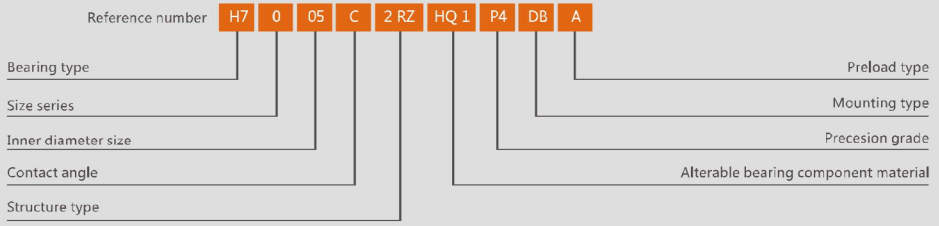








SINGLE/MATCHED MOUNTINGS



H7	Bearing type	Outer ring with a slope and inner ring with double flanges Super high speed type with both the inner and outer rings having a slope Super high speed type (higher than H7) with both the inner and outer rings having a slope Inner ring with a slope, outer ring with double flanges
0	Size series	18 ISO18 (1) 2 ISO10 19 ISO19 (0) 2 ISO02
05	Inner diameter size	00 10mm 01 12mm 02 15mm 03 17mm 04 4×5=20mm 05 5×5=25mm ···
C	Contact angle	C 15° AC 25°
2 RZ	Structure type	With non-contact seals fitted each side Outer ring with a radial bearing lubrication hole
HQ 1	Preload type	Light Medium Heavy Special preload, attached number meaning magnitude of preload forc
P4	Mounting type	General G Back-to-Back DB Face-to-Face DF Tandem DT Triple Back-to-Back Tandem TBT Triple Face-to-Face Tandem TFT Quadruple Back-to-Back Combination QBC Quadruple Back-to-Back Tandem QBT
DB	Precesion grade	P4A better than ISO grade 4
A	Alterable bearing component material	HQ1 ceramic balls

HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

718 C Series nominal contact angle α=15°

718 AC Series nominal contact angle α=25°

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
10	19	5	0.30	0.10	1.8	1.1	75000	120000	0.005	71800C
10	19	5	0.30	0.10	1.7	1.1	70000	110000	0.005	71800AC
12	21	5	0.30	0.10	2.0	1.4	70000	110000	0.006	71801C
12	21	5	0.30	0.10	1.9	1.3	63000	95000	0.006	71801AC
15	24	5	0.30	0.10	2.2	1.8	60000	90000	0.007	71802C
15	24	5	0.30	0.10	2.1	1.7	53000	80000	0.007	71802AC
17	26	5	0.30	0.10	2.3	1.9	53000	80000	0.008	71803C
17	26	5	0.30	0.10	2.1	1.8	50000	75000	0.008	71803AC
20	32	7	0.30	0.10	3.9	3.4	45000	67000	0.018	71804C
20	32	7	0.30	0.10	3.7	3.2	40000	60000	0.018	71804AC
25	37	7	0.30	0.15	4.2	4.1	38000	56000	0.022	71805C
25	37	7	0.30	0.15	3.9	3.9	34000	50000	0.022	71805AC
30	42	7	0.30	0.15	4.4	4.8	32000	48000	0.025	71806C
30	42	7	0.30	0.15	4.1	4.5	28000	43000	0.025	71806AC
35	47	7	0.30	0.15	4.6	5.5	26000	40000	0.029	71807AC
35	47	7	0.30	0.15	4.3	5.2	24000	38000	0.029	71807AC
40	52	7	0.30	0.15	4.8	6.2	24000	38000	0.032	71808C
40	52	7	0.30	0.15	4.5	5.8	20000	34000	0.032	71808AC
45	58	7	0.30	0.15	4.9	6.7	20000	34000	0.040	71809C
45	58	7	0.30	0.15	4.6	6.3	18000	30000	0.040	71809AC
50	65	7	0.30	0.15	7.4	10.0	18000	30000	0.052	71810C
50	65	7	0.30	0.15	6.9	9.5	16000	26000	0.052	71810AC
55	72	9	0.30	0.15	10.2	13.8	16000	26000	0.081	71811C
55	72	9	0.30	0.15	9.6	13.1	15000	24000	0.081	71811AC
60	78	10	0.30	0.15	13.4	18.0	15000	24000	0.100	71812C
60	78	10	0.30	0.15	12.6	17.0	14000	22000	0.100	71812AC
65	85	10	0.60	0.15	13.4	18.8	14000	22000	0.125	71813C
65	85	10	0.60	0.15	12.6	17.8	13000	20000	0.125	71813AC
70	90	10	0.60	0.15	13.8	20.3	13000	20000	0.133	71814C

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Angular contact ball bearings

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
70	90	10	0.60	0.15	13.0	19.1	12000	19000	0.133	71814AC
75	95	10	0.60	0.15	14.2	21.7	12000	19000	0.142	71815C
75	95	10	0.60	0.15	13.3	20.5	11000	18000	0.142	71815AC
80	100	10	0.60	0.15	14.5	23.1	11000	18000	0.150	71816C
80	100	10	0.60	0.15	13.6	21.8	9500	16000	0.150	71816AC
85	110	13	1.00	0.30	21.5	32.2	10000	17000	0.262	71817C
85	110	13	1.00	0.30	20.2	30.5	9000	15000	0.262	71817AC
90	115	13	1.00	0.30	21.7	33.5	9500	16000	0.274	71818C
90	115	13	1.00	0.30	20.4	31.6	8500	14000	0.274	71818AC
95	120	13	1.00	0.30	21.9	34.7	9000	15000	0.287	71819C
95	120	13	1.00	0.30	20.6	32.8	8500	14000	0.287	71819AC
100	125	13	1.00	0.30	22.5	37.0	8500	14000	0.301	71820C
100	125	13	1.00	0.30	21.2	34.9	8000	13000	0.301	71820AC
105	130	13	1.00	0.30	22.7	38.3	8500	14000	0.314	71821C
105	130	13	1.00	0.30	21.3	36.1	8000	13000	0.314	71821AC
110	140	16	1.00	0.30	31.8	51.6	8000	13000	0.496	71822C
110	140	16	1.00	0.30	29.9	48.7	7500	12000	0.496	71822AC
120	150	16	1.00	0.30	33.1	56.9	7000	11000	0.537	71824C
120	150	16	1.00	0.30	31.1	53.7	6700	10000	0.537	71824AC
130	165	18	1.10	0.60	38.7	67.6	6700	10000	0.782	71826C
130	165	18	1.10	0.60	36.3	63.8	6000	9000	0.782	71826AC
140	175	18	1.10	0.60	44.8	79.2	6000	9000	0.813	71828C
140	175	18	1.10	0.60	42.0	74.7	5600	8500	0.813	71828AC
150	190	20	1.10	0.60	51.2	92.0	5600	8500	1.14	71830C
150	190	20	1.10	0.60	48.0	86.8	5000	7500	1.14	71830AC
160	200	20	1.10	0.60	52.4	97.7	5000	7500	1.21	71832C
160	200	20	1.10	0.60	49.2	92.2	4800	7000	1.21	71832AC
170	215	22	1.10	0.60	66.5	123.4	4800	7000	1.61	71834C
170	215	22	1.10	0.60	62.4	116.5	4300	6300	1.61	71834AC

High speed angular contact ball bearings

719 C Series nominal contact angle α=15°

719 AC Series nominal contact angle α=25°

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
8	19	6	0.30	0.10	2.5	1.5	75000	120000	0.010	719/8C
8	19	6	0.30	0.10	2.3	1.3	67000	100000	0.010	719/8AC
10	22	6	0.30	0.10	2.9	1.8	70000	110000	0.010	71900C
10	22	6	0.30	0.10	2.7	1.7	67000	100000	0.010	71900AC
12	24	6	0.30	0.10	3.2	2.2	63000	95000	0.010	71901C
12	24	6	0.30	0.10	3.1	2.1	56000	85000	0.010	71901AC
15	28	7	0.30	0.10	4.8	3.4	53000	80000	0.020	71902C
15	28	7	0.30	0.10	4.6	3.2	50000	75000	0.020	71902AC
17	30	7	0.30	0.10	5.1	3.8	50000	75000	0.020	71903C
17	30	7	0.30	0.10	4.8	3.6	45000	67000	0.020	71903AC
20	37	9	0.30	0.15	7.4	5.8	40000	60000	0.040	71904C
20	37	9	0.30	0.15	7.0	5.6	38000	56000	0.040	71904AC
25	42	9	0.30	0.15	7.6	6.5	34000	50000	0.040	71905C
25	42	9	0.30	0.15	7.2	6.2	30000	45000	0.040	71905AC
30	47	9	0.30	0.15	8.0	7.6	30000	45000	0.050	71906AC
30	47	9	0.30	0.15	7.6	7.2	26000	40000	0.050	71906AC
35	55	10	0.60	0.15	11	10.9	26000	40000	0.070	71907C
35	55	10	0.60	0.15	10.4	10.3	20000	34000	0.070	71907AC
40	62	12	0.60	0.15	14	14.2	20000	34000	0.110	71908C
40	62	12	0.60	0.15	13.3	13.5	18000	30000	0.110	71908AC
45	68	12	0.60	0.15	14.7	16.1	18000	30000	0.130	71909C
45	68	12	0.60	0.15	13.9	15.2	17000	28000	0.130	71909AC
50	72	12	0.60	0.15	19	21.2	17000	28000	0.130	71910C
50	72	12	0.60	0.15	17.9	20.1	15000	24000	0.130	71910AC
55	80	13	1.00	0.30	23.7	27.4	15000	24000	0.180	71911C
55	80	13	1.00	0.30	22.4	26	14000	22000	0.180	71911AC
60	85	13	1.00	0.30	24.8	30.3	14000	22000	0.190	71912C
60	85	13	1.00	0.30	23.3	28.7	13000	20000	0.190	71912AC
65	90	13	1.00	0.30	25.1	31.9	13000	20000	0.200	71913C
65	90	13	1.00	0.30	23.6	30.2	12000	19000	0.200	71913AC
70	100	16	1.00	0.30	34.5	43.4	12000	19000	0.330	71914C
70	100	16	1.00	0.30	32.6	41.2	11000	18000	0.350	71914AC
75	105	16	1.00	0.30	25	45.6	11000	18000	0.350	71915C
75	105	16	1.00	0.30	33	43.2	9500	16000	0.350	71915AC

InnTec Bearing

Angular contact
ball bearings

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
80	110	16	1.00	0.30	35.5	47.8	10000	17000	0.370	71916C
80	110	16	1.00	0.30	33.3	45.3	9000	15000	0.370	71916AC
85	120	18	1.10	0.60	46.5	61.9	9500	16000	0.530	71917C
85	120	18	1.10	0.60	43.8	58.6	8500	14000	0.530	71917AC
90	125	18	1.10	0.60	47.2	64.8	9000	15000	0.560	71918C
90	125	18	1.10	0.60	44.5	61.4	8000	13000	0.560	71918AC
95	130	18	1.10	0.60	47.9	67.8	9000	15000	0.580	71919C
95	130	18	1.10	0.60	45.2	64.1	8000	13000	0.580	71919AC
100	140	20	1.10	0.60	60.4	84.4	8500	14000	0.790	71920C
100	140	20	1.10	0.60	56.9	79.9	8000	13000	0.790	71920AC
105	145	20	1.10	0.60	61.4	88.2	8000	13000	0.830	71921C
105	145	20	1.10	0.60	57.8	83.5	7500	12000	0.830	71921AC
110	150	20	1.10	0.60	62.3	91.9	7500	12000	0.860	71922C
110	150	20	1.10	0.60	58.7	87	7000	11000	0.860	71922AC
120	165	22	1.10	0.60	73.7	107.6	7000	11000	1.170	71924C
120	165	22	1.10	0.60	69.5	101.9	6700	10000	1.170	71924AC
130	180	24	1.50	0.60	76.3	117.1	6700	10000	1.580	71926C
130	180	24	1.50	0.60	71.9	110.9	6000	9000	1.580	71926AC
140	190	24	1.50	0.60	78.9	126.4	6000	9000	1.680	71928C
140	190	24	1.50	0.60	74.4	119.7	5600	8500	1.680	71928AC
150	210	28	2.00	1.00	118.2	175.1	5600	8500	2.480	71930C
150	210	28	2.00	1.00	111.4	165.8	5000	7500	2.480	71930AC
160	220	28	2.00	1.00	123.6	191.2	5000	7500	2.640	71932C
160	220	28	2.00	1.00	116.5	181.1	4800	7000	2.640	71932AC
170	230	28	2.00	1.00	125.7	200.0	4800	7000	2.770	71934C
170	230	28	2.00	1.00	118.5	189.4	4300	6300	2.770	71934AC
180	250	33	2.00	1.00	159.7	249.1	4500	6700	4.100	71936C
180	250	33	2.00	1.00	150.6	235.9	4000	6000	4.100	71936AC
190	260	33	2.00	1.00	162.8	260.8	4300	6300	4.290	71938C
190	260	33	2.00	1.00	153.5	247.0	3800	5600	4.290	71938AC
200	280	38	2.00	1.00	198.4	311.4	3800	5600	5.020	71940C
200	280	38	2.00	1.00	187.1	294.9	3600	5300	5.020	71940AC
220	300	38	2.10	1.00	206.6	341.1	3600	5300	6.520	71944C

HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

72 C Series nominal contact angle α=15°

72 AC Series nominal contact angle α=25°

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
8	24	8	0.30	0.15	4.5	2.3	67000	100000	0.02	728C
8	24	8	0.30	0.15	4.4	2.2	60000	90000	0.02	728AC
10	30	9	0.60	0.15	6.5	3.8	56000	85000	0.03	7200C
10	30	9	0.60	0.15	6.3	3.7	53000	80000	0.03	7200AC
12	32	10	0.60	0.15	7.2	4.5	53000	80000	0.04	7201C
12	32	10	0.60	0.15	6.9	4.3	48000	70000	0.04	7201AC
15	35	11	0.60	0.15	9.1	5.8	48000	70000	0.05	7202C
15	35	11	0.60	0.15	8.8	5.6	43000	63000	0.05	7202AC
17	40	12	0.60	0.30	11.3	7.4	40000	60000	0.07	7203C
17	40	12	0.60	0.30	10.9	7.1	38000	56000	0.07	7203AC
20	47	14	1.00	0.30	13.1	9.6	34000	50000	0.11	7204C
20	47	14	1.00	0.30	12.6	9.2	30000	45000	0.11	7204AC
25	52	15	1.00	0.30	16.8	13.1	30000	45000	0.14	7205C
25	52	15	1.00	0.30	16.1	12.5	26000	40000	0.14	7205AC
30	62	16	1.00	0.30	23.4	18.8	24000	38000	0.21	7206C
30	62	16	1.00	0.30	22.3	18.0	20000	34000	0.21	7206AC
35	72	17	1.10	0.60	25.8	22.9	18000	30000	0.31	7207C
35	72	17	1.10	0.60	24.5	21.9	17000	28000	0.31	7207AC
40	80	18	1.10	0.60	34.1	30.9	17000	28000	0.40	7208C
40	80	18	1.10	0.60	32.5	29.5	15000	24000	0.40	7208AC
45	85	19	1.10	0.60	35.5	33.8	16000	26000	0.45	7209C
45	85	19	1.10	0.60	33.8	32.3	14000	22000	0.45	7209AC
50	90	20	1.10	0.60	43.3	40.6	15000	24000	0.49	7210C
50	90	20	1.10	0.60	41.3	38.7	14000	22000	0.49	7210AC
55	100	21	1.15	0.60	53.6	51.1	14000	22000	0.65	7211C
55	100	21	1.15	0.60	51.1	48.8	13000	20000	0.65	7211AC
60	110	22	1.15	0.60	55.8	56.2	12000	19000	0.86	7212C
60	110	22	1.15	0.60	53.0	53.5	11000	18000	0.86	7212AC
65	120	23	1.15	0.60	67.5	69.0	11000	18000	1.08	7213C
65	120	23	1.15	0.60	64.2	65.8	9500	16000	1.08	7213AC
70	125	24	1.15	0.60	70.2	74.6	10000	17000	1.19	7214C
70	125	24	1.15	0.60	66.6	71.1	9000	15000	1.19	7214AC
75	130	25	1.15	0.60	72.7	80.2	9500	16000	1.29	7215C
75	130	25	1.15	0.60	68.9	76.3	8500	14000	1.29	7215AC

InnTec Bearing

Angular contact ball bearings

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
80	140	26	2.00	1.00	86.5	96.5	9000	15000	1.56	7216C
80	140	26	2.00	1.00	82.1	91.9	8000	13000	1.58	7216AC
85	150	28	2.00	1.00	97.4	107.5	8500	14000	1.96	7217C
85	150	28	2.00	1.00	92.5	102.4	7500	12000	1.96	7217AC
90	160	30	2.00	1.00	121.9	131.3	8000	13000	2.44	7218C
90	160	30	2.00	1.00	115.8	124.6	7000	11000	2.44	7218AC
95	170	32	2.10	1.10	128.9	145.1	7500	12000	2.93	7219C
95	170	32	2.10	1.10	122.5	138.3	6700	10000	2.93	7219AC
100	180	34	2.10	1.10	146.2	165.9	7000	11000	3.51	7220C
100	180	34	2.10	1.10	138.9	158.2	6700	10000	3.51	7220AC
105	190	36	2.10	1.10	164.3	188.2	7000	11000	4.17	7221C
105	190	36	2.10	1.10	156.3	179.5	6300	9500	4.17	7221AC
110	200	38	2.10	1.10	170.4	202.5	6700	10000	4.95	7222C
110	200	38	2.10	1.10	161.8	193.0	6000	9000	4.95	7222AC
120	215	40	2.10	1.10	175.4	218.4	6000	9000	6.01	7224C
120	215	40	2.10	1.10	166.3	207.9	5300	8000	6.01	7224AC
130	230	40	3.00	1.10	200.6	258.3	5600	8500	6.41	7226C
130	230	40	3.00	1.10	190.4	246.2	5000	7500	6.41	7226AC
140	250	42	3.00	1.10	223.6	306.6	5000	7500	8.17	7228C
140	250	42	3.00	1.10	212.3	292.2	4500	6700	8.17	7228AC
150	270	45	3.00	1.10	240.9	341.5	4500	6700	10.83	7230C
150	270	45	3.00	1.10	228.7	325.5	4000	6000	10.83	7230AC
160	290	48	3.00	1.10	248.6	365.8	4300	6300	13.10	7232C
160	290	48	3.00	1.10	236.1	348.6	3800	5600	13.10	7232AC
170	310	52	4.00	1.50	300.2	459.2	3800	5600	15.93	7234C
170	310	52	4.00	1.50	285.0	437.6	3600	5300	15.93	7234AC
180	320	52	4.00	1.50	311.2	490.8	3800	5600	16.61	7236C
180	320	52	4.00	1.50	295.5	467.7	3400	5000	16.61	7236AC
190	340	55	4.00	1.50	321.3	524.8	3400	5000	20.29	7238C
190	340	55	4.00	1.50	305.1	500.1	3200	4800	20.29	7238AC
200	360	58	4.00	1.50	330.9	558.6	3200	4800	24.49	7240C
200	360	58	4.00	1.50	314.2	532.3	3000	4500	24.49	7240AC
220	400	65	4.00	1.50	405.9	730.5	2800	4300	33.93	7244AC
220	400	65	4.00	1.50	385.4	696.2	2600	4000	33.93	7244AC

HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

730 C Series nominal contact angle α=15°

730 AC Series nominal contact angle α=25°

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
20	52	15	1.00	0.30	18.5	9.99	13000	18000	0.141	7304C
20	52	15	1.00	0.30	17.9	9.65	13000	16000	0.141	7304AC
25	62	17	1.00	0.30	27.9	16.2	11000	13000	0.226	7305C
25	62	17	1.00	0.30	27	15.7	11000	13000	0.226	7305AC
30	72	19	1.00	0.30	34.1	21.4	9200	11000	0.347	7306C
30	72	19	1.00	0.30	32.8	20.6	9200	11000	0.347	7306AC
35	80	21	1.10	0.60	40.4	26	8200	10000	0.454	7307C
35	80	21	1.10	0.60	38.8	25	8200	10000	0.454	7307AC
40	90	23	1.10	0.60	52.3	35.5	7200	8900	0.641	7308C
40	90	23	1.10	0.60	50.3	34.1	7200	89000	0.641	7308AC
45	100	25	1.10	0.60	54.1	43.2	6500	8000	0.826	7309C
45	100	25	1.10	0.60	61.7	41.6	6500	8000	0.826	7309AC
50	110	27	1.10	0.60	74.9	51.2	5900	7300	1.090	7310C
50	110	27	1.10	0.60	72.1	49.3	5900	7300	1.090	7310AC
55	120	29	1.50	0.60	91.9	66.1	5400	6600	1.400	7311AC
55	120	29	1.50	0.60	88.4	63.6	5400	6600	1.400	7311AC
60	130	31	1.50	0.60	99.1	70.2	4900	6100	1.720	7312C
60	130	31	1.50	0.60	95.3	67.5	4900	62100	1.720	7312AC
65	140	33	1.50	0.60	112	80.8	4600	5700	2.120	7313C
65	140	33	1.50	0.60	108	77.7	4600	5700	2.120	7313AC
70	150	35	1.50	0.60	134	101	4300	5300	2.560	7314C
70	150	35	1.50	0.60	129	96.7	4300	5300	2.560	7314AC
75	160	37	1.50	0.60	146	114	4000	4900	3.090	7315C
75	160	37	1.50	0.60	140	109	4000	4900	3.090	7315AC
80	170	39	2.00	1.00	158	128	3800	4600	3.650	7316C

InnTec Bearing

Angular contact ball bearings

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
80	170	39	2.00	1.00	152	123	3800	4600	3.650	7316AC
85	180	41	2.00	1.00	170	143	3500	4400	4.290	7317C
85	180	41	2.00	1.00	164	137	3500	4400	4.290	7317AC
90	190	43	2.00	1.00	183	158	3400	4100	5.020	7318C
90	190	43	2.00	1.00	176	152	3400	4100	5.020	7318AC
95	200	45	2.10	1.10	196	175	3200	3900	5.780	7319C
95	200	45	2.10	1.10	188	168	3200	3900	5.780	7319AC
100	215	47	2.10	1.10	210	190	3000	3700	7.020	7320C
100	215	47	2.10	1.10	202	183	3000	3700	7.020	7320AC
105	225	49	2.10	1.10	236	226	2800	3500	8.180	7321C
105	225	49	2.10	1.10	227	218	2800	3500	8.180	7321AC
110	240	50	2.10	1.10	248	241	2700	3300	9.550	7322C
110	240	50	2.10	1.10	239	232	2700	3300	9.550	7322AC
120	260	55	2.10	1.10	279	289	2500	3100	12.500	7324C
120	260	55	2.10	1.10	268	278	2500	3100	12.500	7324AC
130	280	58	3.00	1.10	292	315	2300	2800	15.200	7326C
130	280	58	3.00	1.10	282	303	2300	2800	15.200	7326AC
140	300	62	3.00	1.10	349	397	2100	2600	18.600	7328C
140	300	62	3.00	1.10	336	382	2100	2600	18.600	7328AC
150	320	65	3.00	1.10	330	380	2300	3100	25.100	7330AC
160	240	68	3.00	1.10	345	420	2100	2800	29.800	7332AC
170	380	75	4.00	1.50	390	485	2000	2700	35.300	7334AC
180	380	75	4.00	1.50	410	535	1900	2500	40.900	7336AC
190	400	78	4.00	1.50	430	585	1800	2300	47.000	7338AC
200	420	80	4.00	1.50	450	605	1700	2000	53.100	7340AC

HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

70 C Series nominal contact angle α=15°

70 AC Series nominal contact angle α=25°

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
8	22	7	0.30	0.15	3.0	1.6	70000	110000	0.01	708C
8	22	7	0.30	0.15	2.8	1.5	63000	95000	0.01	708AC
10	26	8	0.30	0.15	4.0	2.4	67000	100000	0.02	7000C
10	26	8	0.30	0.15	3.8	2.3	60000	90000	0.02	7000AC
12	28	8	0.30	0.15	5.0	3.0	60000	90000	0.02	7001C
12	28	8	0.30	0.15	4.8	2.8	56000	85000	0.02	7001AC
15	32	9	0.30	0.15	5.3	3.3	50000	75000	0.03	7002C
15	32	9	0.30	0.15	5.1	3.1	45000	67000	0.03	7002AC
17	35	10	0.30	0.15	6.7	4.9	45000	67000	0.04	7003C
17	35	10	0.30	0.15	6.4	4.7	40000	60000	0.04	7003AC
20	42	12	0.60	0.15	9.6	6.3	38000	56000	0.06	7004C
20	42	12	0.60	0.15	9.2	6.0	34000	50000	0.06	7004AC
25	47	12	0.60	0.15	12.9	8.7	34000	50000	0.07	7005C
25	47	12	0.60	0.15	12.3	8.3	30000	45000	0.07	7005AC
30	55	13	1.00	0.30	15.7	11.6	28000	43000	0.11	7006AC
30	55	13	1.00	0.30	14.9	10.9	24000	38000	0.11	7006AC
35	62	14	1.00	0.30	19.3	17.5	20000	34000	0.15	7007C
35	62	14	1.00	0.30	18.3	16.6	19000	32000	0.15	7007AC
40	68	15	1.00	0.30	19.9	19.1	19000	32000	0.19	7008C
40	68	15	1.00	0.30	18.9	18.2	17000	28000	0.19	7008AC
45	75	16	1.00	0.30	26.7	25.3	17000	28000	0.23	7009C
45	75	16	1.00	0.30	25.4	24.1	16000	26000	0.23	7009AC
50	80	16	1.00	0.30	27.6	27.5	16000	26000	0.25	7010C
50	80	16	1.00	0.30	26.2	26.2	15000	24000	0.25	7010AC
55	90	18	1.10	0.60	36.7	37.1	14000	22000	0.37	7011C
55	90	18	1.10	0.60	34.8	35.3	13000	20000	0.37	7011AC
60	95	18	1.10	0.60	37.8	40	14000	22000	0.39	7012C
60	95	18	1.10	0.60	35.8	38	12000	19000	0.39	7012AC
65	100	18	1.10	0.60	38.9	42.9	13000	20000	0.42	7013C
65	100	18	1.10	0.60	36.8	40.7	11000	18000	0.42	7013AC
70	110	20	1.10	0.60	49.9	55.5	12000	19000	0.59	7014C
70	110	20	1.10	0.60	47.2	52.7	10000	17000	0.59	7014AC
75	115	20	1.10	0.60	51.3	59.2	11000	18000	0.62	7015C
75	115	20	1.10	0.60	48.5	56.2	9500	16000	0.62	7015AC
80	125	22	1.10	0.60	61.6	70.4	10000	17000	0.83	7016C

InnTec Bearing

Angular contact ball bearings

Dimensions (mm)					Load ratings (KN)		Revolution speed limit (r/min)		Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	Cr	Cor	Grease	Oil		
80	125	22	1.10	0.60	58.3	66.9	9000	15000	0.83	7016AC
85	130	22	1.10	0.60	63.3	75	9500	16000	0.87	7017C
85	130	22	1.10	0.60	59.9	71.3	8500	14000	0.87	7017AC
90	140	24	1.50	1.00	66.9	84	9000	15000	1.18	7018C
90	140	24	1.50	1.00	63.2	79.7	8000	13000	1.18	7018AC
95	145	24	1.50	1.00	79.1	97.6	8500	14000	1.20	7019C
95	145	24	1.50	1.00	74.8	92.7	7500	12000	1.20	7019AC
100	150	24	1.50	1.00	81.2	103.3	8000	13000	1.25	7020C
100	150	24	1.50	1.00	76.7	98	7000	11000	1.25	7020AC
105	160	26	2.00	1.00	93.9	118.2	7500	12000	1.58	7021C
105	160	26	2.00	1.00	88.8	112.2	7000	11000	1.58	7021AC
110	170	28	2.00	1.00	110.4	139.8	7000	11000	1.97	7022C
110	170	28	2.00	1.00	104.4	132.8	6700	10000	1.97	7022AC
120	180	28	2.00	1.00	112.7	148.7	7000	11000	2.11	7024C
120	180	28	2.00	1.00	106.5	141.1	6700	10000	2.11	7024AC
130	200	33	2.00	1.00	144.8	190.8	6700	10000	3.18	7026C
130	200	33	2.00	1.00	136.8	181	6000	9000	3.18	7026AC
140	210	33	2.00	1.00	148.7	202.6	6000	9000	3.37	7028C
140	210	33	2.00	1.00	140.4	192.2	5600	8500	3.37	7028AC
150	225	35	2.10	1.10	168.4	232.5	5600	8500	4.10	7030C
150	225	35	2.10	1.10	159.1	220.6	5000	7500	4.10	7030AC
160	240	38	2.10	1.10	189.1	264.5	5000	7500	5.07	7032C
160	240	38	2.10	1.10	178.6	251	4800	7000	5.07	7032AC
170	260	42	2.10	1.10	205.6	299.3	4800	7000	6.90	7034C
170	260	42	2.10	1.10	194.2	284	4300	6300	6.90	7034AC
180	280	46	2.10	1.10	229.5	352.1	4500	6700	9.21	7036C
180	280	46	2.10	1.10	216.8	334.1	4000	6000	9.21	7036AC
190	290	46	2.10	1.10	235.1	370.8	4300	6300	9.61	7040C
190	290	46	2.10	1.10	222.1	351.8	3800	5600	9.61	7040AC
200	310	51	2.10	1.10	289.1	471.4	3800	5600	12.10	7042C
200	310	51	2.10	1.10	273.1	447.3	3600	5300	12.10	7042AC
220	340	56	3.00	1.10	325.3	559.4	3600	5300	15.90	7044C
220	340	56	3.00	1.10	307.3	530.8	3200	4800	15.90	7044AC
240	360	56	3.00	1.10	344.2	623.6	3200	4800	17.00	7048C
240	360	56	3.00	1.10	325.1	591.7	3000	4500	17.0	7048AC

HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

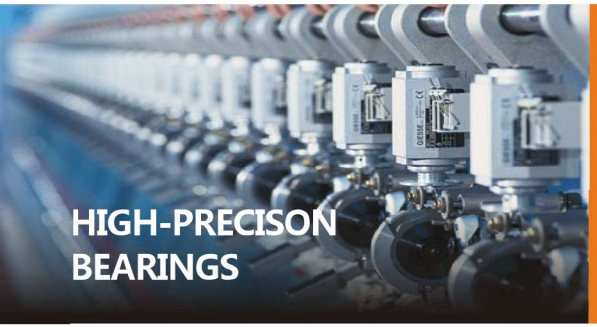
B719 C-2RZ Series nominal contact angle α=15°

B719 AC-2RZ Series nominal contact angle α=25°

InnTec Bearing

Angular contact ball bearings

Dimensions (mm)						Load ratings (KN)		Revolution speed (min⁻¹/min)	Weight (Kg) ≈	Bearing numbers
d	D	B	Rsmin	Rlsmin	a ≈	Cr	Cor	Grease(r/min)		
10	22	6	0.30	0.10	5	1.9	1.0	90000	0.01	B71900 C-2RZ
10	22	6	0.30	0.10	7	1.8	1.0	75000	0.01	B71900 AC-2RZ
12	24	6	0.30	0.10	5	2.0	1.1	80000	0.01	B71901 C-2RZ
12	24	6	0.30	0.10	7	1.9	1.1	67000	0.01	B71901 AC-2RZ
15	28	7	0.30	0.10	6	2.2	1.4	67000	0.02	B71902 C-2RZ
15	28	7	0.30	0.10	9	2.1	1.3	56000	0.02	B71902 AC-2RZ
17	30	7	0.30	0.10	7	2.3	1.5	60000	0.02	B71903 C-2RZ
17	30	7	0.30	0.10	9	2.2	1.4	50000	0.02	B71903 AC-2RZ
20	37	9	0.30	0.15	8	3.9	2.7	50000	0.04	B71904 C-2RZ
20	37	9	0.30	0.15	11	3.7	2.5	43000	0.04	B71904 AC-2RZ
25	42	9	0.30	0.15	9	4.2	3.2	43000	0.05	B71905 C-2RZ
25	42	9	0.30	0.15	12	3.9	3.0	36000	0.05	B71905 AC-2RZ
30	47	9	0.30	0.15	10	6.3	4.9	36000	0.05	B71906 C-2RZ
30	47	9	0.30	0.15	13	6.0	4.6	32000	0.05	B71906 AC-2RZ
35	55	10	0.60	0.15	11	6.9	6.0	32000	0.08	B71907 C-2RZ
35	55	10	0.60	0.15	15	6.5	5.6	26000	0.08	B71907 AC-2RZ
40	62	12	0.60	0.15	13	7.2	6.8	28000	0.13	B71908 C-2RZ
40	62	12	0.60	0.15	18	6.8	6.4	24000	0.13	B71908 AC-2RZ
45	68	12	0.60	0.15	14	10.0	9.3	24000	0.15	B71909 C-2RZ
45	68	12	0.60	0.15	19	9.4	8.8	22000	0.15	B71909 AC-2RZ
50	72	12	0.60	0.15	14	10.3	10.1	22000	0.15	B71910 C-2RZ
50	72	12	0.60	0.15	20	9.7	9.5	20000	0.15	B71910 AC-2RZ
55	80	13	0.60	0.15	16	13.2	12.9	20000	0.20	B71911 C-2RZ
55	80	13	0.60	0.15	22	12.4	12.2	18000	0.20	B71911 AC-2RZ
60	85	13	1.00	0.30	16	13.6	13.9	19000	0.22	B71912 C-2RZ
60	85	13	1.00	0.30	23	12.8	13.2	17000	0.22	B71912 AC-2RZ
65	90	13	1.00	0.30	17	14.0	15.0	18000	0.23	B71913 C-2RZ
65	90	13	1.00	0.30	25	13.2	14.1	15000	0.23	B71913 AC-2RZ
70	100	16	1.00	0.30	19	18.3	19.9	16000	0.38	B71914 C-2RZ
70	100	16	1.00	0.30	28	17.3	18.6	14000	0.38	B71914 AC-2RZ
75	105	16	1.00	0.30	20	18.8	21.2	16000	0.41	B71915 C-2RZ
75	105	16	1.00	0.30	29	17.6	20.0	13000	0.41	B71915 AC-2RZ
80	110	16	1.00	0.30	21	21.0	23.9	15000	0.42	B71916 C-2RZ
80	110	16	1.00	0.30	30	19.6	22.4	13000	0.42	B71916 AC-2RZ
85	120	18	1.10	0.60	23	21.9	26.0	14000	0.62	B71917 C-2RZ
85	120	18	1.10	0.60	33	20.4	24.5	12000	0.62	B71917 AC-2RZ
90	125	18	1.10	0.60	23	23.6	28.5	13000	0.64	B71918 C-2RZ
90	125	18	1.10	0.60	34	22.4	26.5	11000	0.64	B71918 AC-2RZ
95	130	18	1.10	0.60	24	24.5	30.0	12000	0.67	B71919 C-2RZ
95	130	18	1.10	0.60	35	22.8	28.0	10000	0.67	B71919 AC-2RZ
100	140	20	1.10	0.60	26	29.0	36.0	11000	0.92	B71920 C-2RZ
100	140	20	1.10	0.60	38	27.5	33.5	9500	0.92	B71920 AC-2RZ
105	145	20	1.10	0.60	27	30.0	38.0	11000	0.96	B71921 C-2RZ
105	145	20	1.10	0.60	39	28.0	35.5	9000	0.96	B71921 AC-2RZ
110	150	20	1.10	0.60	27	34.5	43.8	10000	0.98	B71922 C-2RZ
110	150	20	1.10	0.60	40	32.5	40.5	9000	0.98	B71922 AC-2RZ
120	165	22	1.10	0.60	30	36.5	48.0	9000	1.37	B71924 C-2RZ
120	165	22	1.10	0.60	44	34.0	45.0	8000	1.37	B71924 AC-2RZ
130	180	24	1.50	0.60	33	41.1	55.9	8500	1.77	B71926 C-2RZ
130	180	24	1.50	0.60	48	38.6	52.0	7000	1.77	B71926 AC-2RZ
140	190	24	1.50	0.60	34	41.9	60.0	7000	1.88	B71928 C-2RZ
140	190	24	1.50	0.60	50	39.4	55.6	6700	1.88	B71928 AC-2RZ
150	210	28	2.00	1.00	38	47.5	71.1	6700	2.94	B71930 C-2RZ
150	210	28	2.00	1.00	56	44.7	67.0	6000	2.94	B71930 AC-2RZ
160	220	28	2.00	1.00	39	50.1	74.8	6000	3.11	B71932 C-2RZ
160	220	28	2.00	1.00	58	47.1	70.5	5600	3.11	B71932 AC-2RZ
170	230	28	2.00	1.00	41	57.7	86.8	5600	3.22	B71934 C-2RZ
170	230	28	2.00	1.00	61	54.3	81.8	5000	3.22	B71934 AC-2RZ
180	250	33	2.00	1.00	45	59.2	93.1	5000	4.93	B71936 C-2RZ
180	250	33	2.00	1.00	67	55.7	87.7	4800	4.93	B71936 AC-2RZ
190	260	33	2.00	1.00	47	75.0	116.1	4800	5.03	B71938 C-2RZ
190	260	33	2.00	1.00	69	70.6	109.4	4300	5.03	B71938 AC-2RZ
200	280	38	2.00	1.00	51	75.0	120.7	4500	7.26	B71940 C-2RZ
200	280	38	2.00	1.00	75	70.5	113.7	4000	7.26	B71940 AC-2RZ
220	300	38	2.00	1.00	54	84.6	139.6	4300	7.77	B71944 C-2RZ
220	300	38	2.00	1.00	80	79.6	131.5	3800	7.77	B71944 AC-2RZ



HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

B70 C-2RZ Series nominal contact angle α=15°

B70 AC-2RZ Series nominal contact angle α=25°

Dimensions (mm)						Load ratings (KN)		Revolution speed (min⁻¹/min)	Weight (Kg)	Bearing numbers
d	D	B	Rsmin	Rlsmin	a ≈	Cr	Cor	Grease(r/min)	≈	
10	26	8	0.30	0.15	6	2.1	1.2	80000	0.02	B7000 C-2RZ
10	26	8	0.30	0.15	8	2.1	1.2	67000	0.02	B7000 AC-2RZ
12	28	8	0.30	0.15	7	2.2	1.3	70000	0.02	B7001 C-2RZ
12	28	8	0.30	0.15	9	2.0	1.2	60000	0.02	B7001 AC-2RZ
15	32	9	0.30	0.15	8	3.6	2.3	60000	0.03	B7002 C-2RZ
15	32	9	0.30	0.15	10	3.5	2.2	50000	0.03	B7002 AC-2RZ
17	35	10	0.30	0.15	8	3.8	2.5	53000	0.04	B7003 C-2RZ
17	35	10	0.30	0.15	11	3.6	2.3	45000	0.04	B7003 AC-2RZ
20	42	12	0.60	0.15	10	6.1	4.3	45000	0.08	B7004 C-2RZ
20	42	12	0.60	0.15	13	5.8	4.1	38000	0.08	B7004 AC-2RZ
25	47	12	0.60	0.15	11	6.2	4.6	38000	0.09	B7005 C-2RZ
25	47	12	0.60	0.15	14	5.8	4.4	34000	0.09	B7005 AC-2RZ
30	55	13	1.00	0.30	12	8.6	6.6	32000	0.13	B7006 C-2RZ
30	55	13	1.00	0.30	16	8.1	6.3	28000	0.13	B7006 AC-2RZ
35	62	14	1.00	0.30	13	9.2	7.8	28000	0.18	B7007 C-2RZ
35	62	14	1.00	0.30	18	8.7	7.4	24000	0.18	B7007 AC-2RZ
40	68	15	1.00	0.30	15	9.8	8.9	26000	0.22	B7008 C-2RZ
40	68	15	1.00	0.30	20	9.3	8.4	22000	0.22	B7008 AC-2RZ
45	75	16	1.00	0.30	16	12.5	11.4	24000	0.28	B7009 C-2RZ
45	75	16	1.00	0.30	22	11.8	10.7	20000	0.28	B7009 AC-2RZ
50	80	16	1.00	0.30	17	12.9	12.4	22000	0.30	B7010 C-2RZ
50	80	16	1.00	0.30	23	12.2	11.7	18000	0.30	B7010 AC-2RZ
55	90	18	1.10	0.30	19	18.6	17.8	19000	0.44	B7011 C-2RZ
55	90	18	1.10	0.60	26	17.5	16.8	17000	0.44	B7011 AC-2RZ
60	95	18	1.10	0.60	19	19.3	19.3	18000	0.47	B7012 C-2RZ
60	95	18	1.10	0.60	27	18.2	18.2	15000	0.47	B7012 AC-2RZ
65	100	18	1.10	0.60	20	19.9	20.8	17000	0.50	B7013 C-2RZ
65	100	18	1.10	0.60	28	18.9	19.7	15000	0.50	B7013 AC-2RZ
70	110	20	1.10	0.60	22	25.9	26.7	16000	0.69	B7014 C-2RZ
70	110	20	1.10	0.60	31	24.4	25.2	13000	0.69	B7014 AC-2RZ
75	115	20	1.10	0.60	23	26.2	27.8	15000	0.73	B7015 C-2RZ
75	115	20	1.10	0.60	32	24.7	26.3	13000	0.73	B7015 AC-2RZ
80	125	22	1.10	0.60	25	31.2	33.5	14000	0.99	B7016 C-2RZ

InnTec Bearing

Angular contact ball bearings

Dimensions (mm)						Load ratings (KN)		Revolution speed (min⁻¹/min)	Weight (Kg)	Bearing numbers
d	D	B	Rsmin	Rlsmin	a ≈	Cr	Cor	Grease(r/min)	≈	
80	125	22	1.10	0.60	35	29.5	31.7	12000	0.99	B7016 AC-2RZ
85	130	22	1.10	0.60	25	31.6	34.9	13000	1.03	B7017 C-2RZ
85	130	22	1.10	0.60	36	29.9	32.9	11000	1.03	B7017 AC-2RZ
90	140	24	1.50	0.60	27	37.1	41.4	12000	1.35	B7018 C-2RZ
90	140	24	1.50	0.60	39	35.1	39.1	10000	1.35	B7018 AC-2RZ
95	145	24	1.50	0.60	28	37.6	43.0	11000	1.40	B7019 C-2RZ
95	145	24	1.50	0.60	40	35.5	40.6	9500	1.40	B7019 AC-2RZ
100	150	24	1.50	0.60	29	38.1	44.6	11000	1.46	B7020 C-2RZ
100	150	24	1.50	0.60	41	36.0	42.1	9000	1.46	B7020 AC-2RZ
105	160	26	2.00	1.00	31	49.1	56.3	10000	1.82	B7021 C-2RZ
105	160	26	2.00	1.00	44	46.4	53.2	8000	1.82	B7021 AC-2RZ
110	170	28	2.00	1.00	33	49.7	58.5	9500	2.31	B7022 C-2RZ
110	170	28	2.00	1.00	47	46.9	55.3	8000	2.31	B7022 AC-2RZ
120	180	33	2.00	1.00	34	51.0	62.8	8500	2.47	B7024 C-2RZ
120	180	33	2.00	1.00	49	48.2	58.5	7500	2.47	B7024 AC-2RZ
130	200	33	2.00	1.00	39	65.4	81.5	7500	3.68	B7026 C-2RZ
130	200	33	2.00	1.00	55	61.8	77.0	6700	3.68	B7026 AC-2RZ
140	210	33	2.00	1.00	40	67.1	87.0	6700	3.91	B7028 C-2RZ
140	210	33	2.00	1.00	57	63.4	82.2	6300	3.91	B7028 AC-2RZ
150	225	35	2.10	1.10	43	82.4	106.5	6000	4.71	B7030 C-2RZ
150	225	35	2.10	1.10	61	77.8	100.6	5600	4.71	B7030 AC-2RZ
160	240	38	2.10	1.10	46	84.3	113.4	5600	5.90	B7032 C-2RZ
160	240	38	2.10	1.10	66	79.6	107.2	5000	5.90	B7032 AC-2RZ
170	260	42	2.10	1.10	50	102.7	139.6	5300	7.94	B7034 C-2RZ
170	260	42	2.10	1.10	71	97.0	131.9	4800	7.94	B7034 AC-2RZ
180	280	46	2.10	1.10	54	104.8	148.3	4800	10.57	B7036 C-2RZ
180	280	46	2.10	1.10	77	99.0	140.1	4300	10.57	B7036 AC-2RZ
190	290	46	2.10	1.10	55	123.7	173.9	4500	10.84	B7038 C-2RZ
190	290	46	2.10	1.10	79	116.9	164.3	4000	10.84	B7038 AC-2RZ
200	310	51	2.10	1.10	60	126.4	184.4	4000	14.32	B7040 C-2RZ
200	310	51	2.10	1.10	85	119.4	174.2	3800	14.32	B7040 AC-2RZ
220	340	56	3.00	1.10	66	147.7	219.5	3800	18.82	B7044 C-2RZ
220	340	56	3.00	1.10	93	139.5	207.4	3600	18.82	B7044 AC-2RZ

HIGH-PRECISON BEARINGS

High speed angular contact ball bearings

B70 C-2RZ/HQ1 Series nominal contact angle α=15°

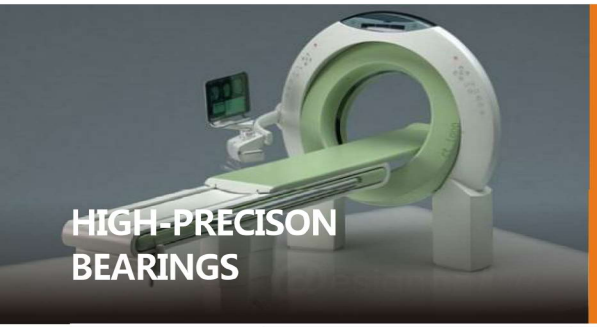
B70 AC-2RZ/HQ1 Series nominal contact angle α=25°

Dimensions (mm)						Load ratings (KN)		Revolution speed (min⁻¹/min)	Weight (Kg)	Bearing numbers
d	D	B	Rsmin	Rlsmin	a ≈	Cr	Cor	Grease(r/min)	≈	
10	26	8	0.30	0.15	6	2.2	1.2	90000	0.02	B7000 C-2RZ/HQ1
10	26	8	0.30	0.15	8	2.1	1.2	75000	0.02	B7000 AC-2RZ/HQ1
12	28	8	0.30	0.15	7	2.2	1.3	80000	0.02	B7001 C-2RZ/HQ1
12	28	8	0.30	0.15	9	2.0	1.2	70000	0.02	B7001 AC-2RZ/HQ1
15	32	9	0.30	0.15	8	3.6	2.3	70000	0.03	B7002 C-2RZ/HQ1
15	32	9	0.30	0.15	10	3.5	2.2	60000	0.03	B7002 AC-2RZ/HQ1
17	35	10	0.30	0.15	8	3.8	2.5	63000	0.04	B7003 C-2RZ/HQ1
17	35	10	0.30	0.15	11	3.6	2.3	53000	0.04	B7003 AC-2RZ/HQ1
20	42	12	0.60	0.15	10	6.1	4.3	53000	0.08	B7004 C-2RZ/HQ1
20	42	12	0.60	0.15	13	5.8	4.1	45000	0.08	B7004 AC-2RZ/HQ1
25	47	12	0.60	0.15	11	6.2	4.6	45000	0.09	B7005 C-2RZ/HQ1
25	47	12	0.60	0.15	14	5.8	4.4	38000	0.09	B7005 AC-2RZ/HQ1
30	55	13	1.00	0.30	12	8.6	6.6	38000	0.13	B7006 C-2RZ/HQ1
30	55	13	1.00	0.30	16	8.1	6.3	32000	0.13	B7006 AC-2RZ/HQ1
35	62	14	1.00	0.30	13	9.2	7.8	34000	0.18	B7007 C-2RZ/HQ1
35	62	14	1.00	0.30	18	8.7	7.4	28000	0.18	B7007 AC-2RZ/HQ1
40	68	15	1.00	0.30	15	9.8	8.9	30000	0.20	B7008 C-2RZ/HQ1
40	68	15	1.00	0.30	20	9.3	8.4	26000	0.20	B7008 AC-2RZ/HQ1
45	75	16	1.00	0.30	16	12.5	11.4	26000	0.26	B7009 C-2RZ/HQ1
45	75	16	1.00	0.30	22	11.8	10.7	24000	0.26	B7009 AC-2RZ/HQ1
50	80	16	1.00	0.30	17	12.9	12.4	24000	0.28	B7010 C-2RZ/HQ1
50	80	16	1.00	0.30	23	12.2	11.7	22000	0.28	B7010 AC-2RZ/HQ1
55	90	18	1.10	0.60	19	18.6	17.8	22000	0.41	B7011 C-2RZ/HQ1
55	90	18	1.10	0.60	26	17.5	16.8	19000	0.41	B7011 AC-2RZ/HQ1
60	95	18	1.10	0.60	19	19.3	19.3	20000	0.43	B7012 C-2RZ/HQ1
60	95	18	1.10	0.60	27	18.2	18.2	18000	0.43	B7012 AC-2RZ/HQ1
65	100	18	1.10	0.60	20	19.9	20.8	20000	0.46	B7013 C-2RZ/HQ1
65	100	18	1.10	0.60	28	18.8	19.7	17000	0.46	B7013 AC-2RZ/HQ1
70	110	20	1.10	0.60	22	25.9	26.7	18000	0.64	B7014 C-2RZ/HQ1
70	110	20	1.10	0.60	31	24.4	25.2	15000	0.64	B7014 AC-2RZ/HQ1
75	115	20	1.10	0.60	23	26.2	27.8	17000	0.67	B7015 C-2RZ/HQ1
75	115	20	1.10	0.60	32	24.7	26.3	15000	0.67	B7015 AC-2RZ/HQ1
80	125	22	1.10	0.60	25	31.2	33.5	16000	0.90	B7016 C-2RZ/HQ1

InnTec Bearing

Angular contact ball bearings

Dimensions (mm)						Load ratings (KN)		Revolution speed (min⁻¹/min)	Weight (Kg)	Bearing numbers
d	D	B	Rsmin	Rlsmin	a ≈	Cr	Cor	Grease(r/min)	≈	
80	125	22	1.10	0.60	35	29.5	31.7	13000	0.90	B7016 AC-2RZ/HQ1
85	130	22	1.10	0.60	25	31.6	34.9	15000	0.94	B7017 C-2RZ/HQ1
85	130	22	1.10	0.60	36	29.9	32.9	13000	0.94	B7017 AC-2RZ/HQ1
90	140	24	1.50	0.60	27	37.1	41.4	14000	1.24	B7018 C-2RZ/HQ1
90	140	24	1.50	0.60	39	35.1	39.1	12000	1.24	B7018 AC-2RZ/HQ1
95	145	24	1.50	0.60	28	37.6	43.0	13000	1.26	B7019 C-2RZ/HQ1
95	145	24	1.50	0.60	40	35.5	40.6	11000	1.26	B7019 AC-2RZ/HQ1
100	150	24	1.50	0.60	29	38.1	44.6	12000	1.34	B7020 C-2RZ/HQ1
100	150	24	1.50	0.60	41	36.0	42.1	11000	1.34	B7020 AC-2RZ/HQ1
105	160	26	2.00	1.00	31	49.1	56.3	12000	1.66	B7021 C-2RZ/HQ1
105	160	26	2.00	1.00	44	46.4	53.2	10000	1.66	B7021 AC-2RZ/HQ1
110	170	28	2.00	1.00	33	49.7	58.5	11000	2.16	B7022 C-2RZ/HQ1
110	170	28	2.00	1.00	47	46.9	55.3	9000	2.16	B7022 AC-2RZ/HQ1
120	180	28	2.00	1.00	34	51.0	62.8	10000	2.21	B7024 C-2RZ/HQ1
120	180	28	2.00	1.00	49	48.2	58.5	8500	2.21	B7024 AC-2RZ/HQ1
130	200	33	2.00	1.00	39	65.4	81.5	9000	3.52	B7026 C-2RZ/HQ1
130	200	33	2.00	1.00	55	61.0	77.0	7500	3.52	B7026 AC-2RZ/HQ1
140	210	33	2.00	1.00	40	67.1	87.0	7500	3.73	B7028 C-2RZ/HQ1
140	210	33	2.00	1.00	57	63.4	82.2	7000	3.73	B7028 AC-2RZ/HQ1
150	225	35	2.10	2.10	43	82.4	106.5	6700	4.46	B7030 C-2RZ/HQ1
150	225	35	2.10	2.10	61	77.8	100.6	6300	4.46	B7030 AC-2RZ/HQ1
160	240	38	2.10	1.10	46	84.3	113.4	6300	5.64	B7032 C-2RZ/HQ1
160	240	38	2.10	1.10	66	79.6	107.2	5600	5.64	B7032 AC-2RZ/HQ1
170	260	42	2.10	1.10	50	102.7	139.6	6000	7.95	B7034 C-2RZ/HQ1
170	260	42	2.10	1.10	71	97.0	131.9	5300	7.95	B7034 AC-2RZ/HQ1
180	280	46	2.10	1.10	54	104.8	148.3	5300	10.20	B7036 C-2RZ/HQ1
180	280	46	2.10	1.10	77	99.0	140.1	4800	10.20	B7036 AC-2RZ/HQ1
190	290	46	2.10	1.10	55	123.7	173.9	5000	10.36	B7038 C-2RZ/HQ1
190	290	46	2.10	1.10	79	116.9	164.3	4500	10.36	B7038 AC-2RZ/HQ1
200	310	51	2.10	1.10	60	126.4	184.4	4500	13.81	B7040 C-2RZ/HQ1
200	310	51	2.10	1.10	85	119.4	174.2	4300	13.81	B7040 AC-2RZ/HQ1
220	340	56	3.00	1.10	66	147.7	219.5	4300	18.16	B7044 C-2RZ/HQ1
220	340	56	3.00	1.10	93	139.5	207.4	4000	18.16	B7044 AC-2RZ/HQ1



High speed angular contact ball bearings
(ceramic balls)

B70 C-2RZ/HQ1 Series nominal contact angle α=15°

B70 AC-2RZ/HQ1 Series nominal contact angle α=25°

Dimensions (mm)			∠15° Revolution speed limit				∠25° Revolution speed limit				Cage	Bearing numbers
			Load ratings (KN)		Grease	Oil	Load ratings (KN)		Grease	Oil		
d	D	B	Cr	Cor			Cr	Cor				
10	26	8	4.65	2.07	24000	32000	4.65	2.07	24000	32000	Bakelite	7000
12	28	8	5.05	2.46	22000	28000	5.05	2.46	22000	28000	Bakelite	7001
15	32	9	5.80	3.15	19000	25000	5.80	3.15	19000	25000	Bakelite	7002
17	35	10	6.7	4.9	44000	66000	6.4	4.7	39000	59000	Bakelite	7003
20	42	12	9.6	6.3	37000	55000	9.2	6.0	33000	49000	Bakelite	7004
25	47	12	12.9	8.7	33000	49000	12.3	8.3	29000	44000	Bakelite	7005
30	55	13	15.7	11.6	27000	42000	14.9	10.9	23000	37000	Bakelite	7006
35	62	14	19.3	17.5	19000	33000	10.4	10.3	19000	33000	Bakelite	7007
40	68	15	19.9	19.1	18000	31000	18.9	18.2	16000	27000	Bakelite	7008
45	75	16	26.7	25.3	16000	27000	25.4	24.1	15000	25000	Bakelite	7009
50	80	16	27.6	27.5	15000	25000	26.2	26.2	14000	23000	Bakelite	7010
55	90	18	36.7	37.1	13000	21000	34.8	35.3	12000	19000	Bakelite	7011
60	95	18	37.8	40	13000	21000	35.8	38	11000	18000	Bakelite	7012
65	100	18	38.9	42.9	12000	19000	36.8	40.7	10000	17000	Bakelite	7013
70	110	20	49.9	55.5	11000	18000	47.2	52.7	9000	16000	Bakelite	7014
75	115	20	51.3	59.2	10000	17000	48.5	56.2	8500	15000	Bakelite	7015
80	125	22	61.6	70.4	9000	16000	58.3	66.9	8000	14000	Bakelite	7016
85	130	22	63.6	75	8500	15000	59.9	71.3	7500	13000	Bakelite	7017
90	140	24	66.9	84	8000	14000	63.2	79.7	7000	12000	Bakelite	7018
95	145	24	79.1	97.6	7500	13000	74.8	92.7	6500	11000	Bakelite	7019
100	150	24	81.2	103.3	7000	12000	76.7	9.8	6000	10000	Bakelite	7020
105	160	26	93.9	118.2	6500	11000	88.8	112.2	6000	10000	Bakelite	7021
110	170	28	110.4	139.8	6000	10000	104.4	132.8	5700	9000	Bakelite	7022
120	180	28	112.7	148.7	6000	10000	106.3	141.1	5700	9000	Bakelite	7024
130	200	33	144.8	190.8	5700	9000	136.8	181.0	5000	8000	Bakelite	7026
140	210	33	148.7	202.6	5000	8000	140.4	192.2	4600	7500	Bakelite	7028
150	225	35	168.4	232.5	4600	7500	159.1	220.6	4000	6500	Bakelite	7030
160	240	38	189.1	264.5	4000	6500	178.6	251.0	3800	6000	Bakelite	7032
170	260	42	205.6	299.3	3800	6000	194.2	284.0	3300	5300	Bakelite	7034
180	280	46	229.5	352.1	3500	5700	216.8	334.1	3000	5000	Bakelite	7036
190	290	46	235.1	370.8	3300	5300	222.1	351.8	2800	4600	Copper	7038
200	310	51	289.1	471.4	2800	4600	273.1	447.3	2600	4300	Copper	7040
220	340	56	338	445	2500	3700	319	440	2400	3500	Copper	7044
240	360	56	345	490	2200	3300	325	465	2100	3100	Copper	7048
260	400	65	346	490	2201	3300	326	465	2101	3100	Copper	7052
280	420	65	347	490	2202	3300	327	465	2102	3100	Copper	7056
300	460	74	348	490	2203	3300	328	465	2103	3100	Copper	7060
320	480	74	349	490	2204	3300	329	465	2104	3100	Copper	7064

InnTec Bearing

Angular contact
ball bearings

Dimensions (mm)			∠15° Revolution speed limit				∠25° Revolution speed limit				Cage	Bearing numbers
			Load ratings (KN)		Grease	Oil	Load ratings (KN)		Grease	Oil		
d	D	B	Cr	Cor			Cr	Cor				
340	520	82	350	490	2205	3300	330	465	2105	3100	Copper	7068
360	540	82	351	490	2206	3300	331	465	2106	3100	Copper	7072
380	560	82	352	490	2207	3300	332	465	2107	3100	Copper	7076
400	600	90	353	490	2208	3300	333	465	2108	3100	Copper	7080
420	620	90	354	490	2209	3300	334	465	2109	3100	Copper	7084
10	30	9	6.4	3.8	55000	84000	6.3	3.7	52000	79000	Bakelite	7200
12	32	10	7.2	4.5	52000	79000	6.9	4.3	47000	69000	Bakelite	7201
15	35	11	9.1	5.8	47000	69000	8.8	5.6	42000	62000	Bakelite	7202
17	40	12	11.3	7.4	39000	59000	10.9	7.1	37000	55000	Bakelite	7203
20	47	14	13.1	9.6	33000	49000	12.6	9.2	29000	44000	Bakelite	7204
25	52	15	16.8	13.1	29000	44000	16.1	12.5	25000	39000	Bakelite	7205
30	62	16	23.4	18.8	23000	37000	22.3	18.0	19000	33000	Bakelite	7206
35	72	17	25.8	22.9	17000	29000	24.5	21.9	16000	27000	Bakelite	7207
40	80	18	34.1	30.9	16000	27000	32.5	29.5	14000	23000	Bakelite	7208
45	85	19	35.5	33.8	15000	25000	33.8	32.3	13000	21000	Bakelite	7209
50	90	20	43.3	40.6	14000	23000	41.3	38.7	13000	21000	Bakelite	7210
55	100	21	53.6	51.1	13000	21000	51.1	48.8	12000	19000	Bakelite	7211
60	110	22	55.8	56.2	11000	18000	53.0	53.5	10000	17000	Bakelite	7212
65	120	23	67.5	69.0	10000	17000	64.2	65.8	8500	15000	Bakelite	7213
70	125	24	70.2	74.6	9000	16000	66.6	71.7	8000	14000	Bakelite	7214
75	130	25	72.7	80.2	8500	15000	68.9	76.3	7500	13000	Bakelite	7215
80	140	26	86.5	96.5	8000	14000	82.1	91.9	7000	12000	Bakelite	7216
85	150	28	97.4	107.5	7500	13000	92.5	102.4	6500	11000	Bakelite	7217
90	160	30	121.9	131.3	7000	12000	115.8	124.6	6000	10000	Bakelite	7218
95	170	32	128.9	145.1	6500	11000	122.5	138.3	5700	9000	Bakelite	7219
100	180	34	146.2	165.9	6000	10000	138.9	158.2	5700	9000	Bakelite	7220
105	190	36	164.3	118.2	6000	10000	156.3	179.5	5300	8500	Bakelite	7221
110	200	38	170.4	202.5	5700	9000	161.8	193.0	5000	8000	Bakelite	7222
120	215	40	175.4	218.4	5000	8000	166.3	207.9	4300	7000	Bakelite	7224
130	230	40	200.6	258.3	4600	7500	190.4	246.2	4000	6500	Bakelite	7226
140	250	42	223.6	306.6	4000	6500	212.3	292.2	3500	5700	Bakelite	7228
150	270	45	240.9	341.5	3500	5700	228.7	325.5	3000	5000	Bakelite	7230
160	290	48	248.6	365.8	3300	5300	236.1	348.6	2800	4600	Bakelite	7232
170	310	52	300.2	459.2	2800	4600	285.0	473.6	2600	4300	Bakelite	7234
180	320	52	300.2	459.2	2800	4600	285.0	473.6	2600	4300	Bakelite	7236
190	340	55	300.2	459.2	2800	4600	285.0	473.6	2600	4300	Bakelite	7238
200	360	58	300.2	459.2	2800	4600	285.0	473.6	2600	4300	Bakelite	7240
220	400	65	300.2	459.2	2800	4600	285.0	473.6	2600	4300	Bakelite	7244