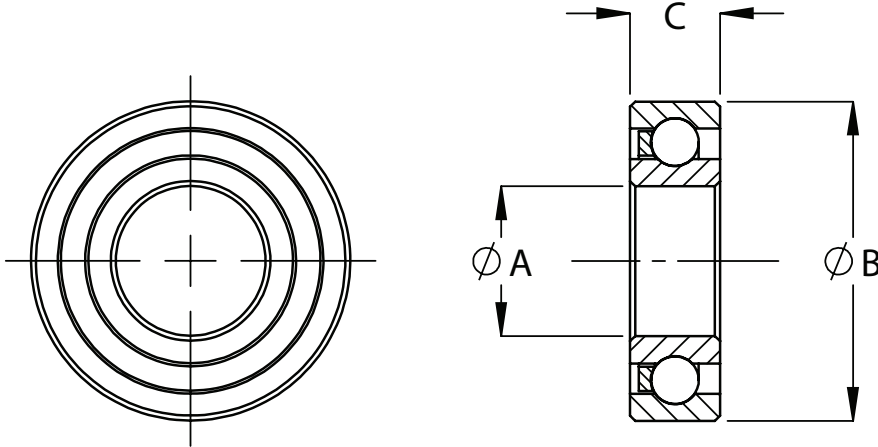


Radial Bearings (Metric - Miniature)

Acetal races fitted with stainless steel balls as standard.

Please contact us for other material options.



All dimensions are in mm.



Z = Shield
ZZ = Double Shield
F = Flanged
K = Keyway

BNL Part No.	Ball Size	No. of Balls	A	B	C	Static Load Rating (kg)	Dynamic Load Rating (kg)
AC686ZZ	1.5mm	8	6.00	13.00	5.00	1.25	3.00
AC686FZZ	1.5mm	8	6.00	13.00	5.00	1.25	3.00
AC686FZZK	1.5mm	8	6.00	13.00	5.00	1.25	3.00
AC626Z	1/8	7	6.00	19.00	6.00	5.00	12.00
AC636ZZ	5/32	7	6.00	22.00	7.00	7.50	19.00
AC6M12	1.5mm	8	6.00	12.00	4.00	1.25	3.00
AC688ZZ	2.0mm	9	8.00	16.00	5.00	2.50	6.00
AC688ZZF	2.0mm	9	8.00	16.00	5.00	2.50	6.00
AC608Z	5/32	7	8.00	22.00	7.00	7.50	19.00
AC608ZF	5/32	7	8.00	22.00	7.00	7.50	19.00

BNL (UK) Ltd offers a range of miniature plastic bearings designed to directly replace steel bearings in many demanding long-life light-load applications.

Produced to meet the high performance needs of business machines, office equipment and other light duty mechanical applications, these bearings are supplied to leading OEM manufacturers worldwide.

The majority of BNL mini bearings are manufactured from acetal (POM) fitted with either stainless steel or carbon steel balls. A semi-crystalline material, acetal delivers excellent long-term wear performance.

It is dimensionally stable when subjected to load, temperature and most fluids including detergents, fuel/oils/greases, brake fluid, alkalis (pH9), alcohols, aliphatic/aromatic hydrocarbons, and acetone. Resistance to bleach and ketones is also possible, dependent on concentration. In addition, these bearings are lightweight, require no external lubrication, operate in temperatures from -40°C to 100°C and offer lower friction at higher speeds. With fully moulded inner and outer races,

BNL moulded bearings offer a greater life expectancy than similar bearings with machined races. Flanged options offer a fully integrated feature for accurate axial positioning.

Radial Bearings (Metric - Miniature)

Acetal races fitted with stainless steel balls as standard.

Please contact us for other material options.



Inner Race, Outer Race & Cage:	POM (acetal)
Balls:	Carbon Steel or Stainless Steel as standard
Grease:	Non-lubricated or lithium/PTFE soap
Run-out (max at shaft):	0.10mm
Temperature Range:	-60°C to +120°C (shipping); -40°C to +100°C (operating)
Speed Limit:	>5,000 rpm*
Life (max at <1kg):	500,000,000 revs*
Frictional Torque (un-lubricated)	<3 µNm*

* Guide only – actual figures depend on application and can be supplied on receipt of environmental conditions
Other sizes, materials and ball types are available on request

Bearing Life

The graph below shows the results of a test between BNL bearings and our competitors bearings.

Both were run under the same operating conditions and to the same number of revolutions ("Acceptable Life") and the levels of internal clearance (or DC) were measured.

This measurement shows the different wear rates of the two types of bearings based on the change in internal clearance.

In this test, BNL's bearings consistently outperformed the competition, lasting approximately three times longer before reaching the same level of internal clearance.

Real user applications may have particular environmental conditions that will affect bearing performance. BNL's design engineers can advise on bearing design and selection for specific conditions - elevated temperatures, lubrication, fluctuating loads or speeds, etc.

