# HEAVY DUTY BEARINGS

## FOR APPLICATIONS THAT OTHER BEARINGS CAN'T HANDLE!

**The BowMet range has been billed as the biggest advance in plain bearings in more than 70 years by the industry press, and quite rightly so. This new range of heavy-duty bearings offers a higher load capacity than any other proprietary plain bearing. Its heat, speed and corrosion capabilities combine to offer a high strength bearing that can stand up to even the harshest of conditions.**

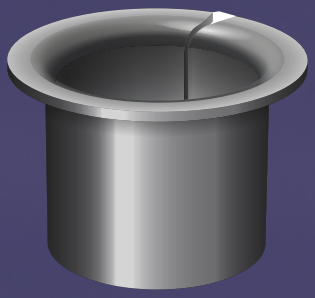
**These heavy-duty bearings have been developed using ToughMet® material by Materion in the USA. The ToughMet material that BowMet is made from was used on the Mars Rover in 2011, so that should give you some idea of just how 'tough' ToughMet is!**

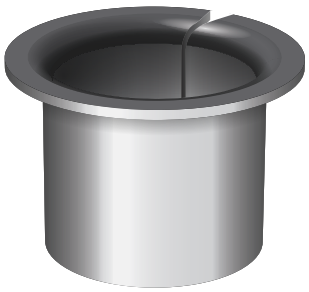
**With a static load of 820 N/mm2 and an impressive PV factor of 9.6, these heavyduty bearings are ideally suited to a wide range of harsh industrial applications including:**

- **Mining & quarrying**
- **Heavy construction**
- **Motorsport**
- **Offshore oil & gas**
- **Marine**

**The ToughMet material resists saltwater corrosion, hydrogen embrittlement and chloride stress-corrosion cracking better than most copper alloys. Indeed, in some sulphide environments, the corrosion rate is comparable to stainless steel and nickel alloys.**

**The capacity to deliver increased reliability, reduced downtime, lower maintenance costs and ultimately fewer warranty claims mean that BowMet range of heavy-duty bearings really is nothing short of a revolution in bearing design and capability.**





## PTFE LINED WRAPPED BEARINGS

Bowman WMU range of PTFE lined wrapped bearings is suitable for dry running, low friction, low wear applications. These wrapped bearings have excellent sliding characteristics forming a transfer film that can protect the mating metal surface.

Our PTFE lined wrapped bearings have been developed for high duty applications. Such applications include, but are not limited to:

- Automotive suspension struts
- Shock absorbers
- Hydraulic cylinders
- Gear pumps and motors
- Axial and radial piston pumps and motors
- Many other applications

Bowman is able to offer PTFE lined wrapped bearings in metric plain, imperial plain, metric flanged, metric washers, imperial washers, metric strip and imperial strip. Special sizes can be produced to customer requirements. Equivalent alternative brands include: Glacier Garlock DU, P10, P14.

**STRUCTURE**

- A lead-free polymer fibre mixture provides an initial transfer film which effectively coats the mating surface of the bearing assembly, forming an oxide-type solid lubricant film
- Sintered bronze powder provides maximum thermal conductivity away from the bearing surface and also serves as a reservoir for the PTFE mixture
- The steel backing provides a high load-carrying capacity which provides the wrapped bearings with outstanding heat dissipation
- The copper/tin plating provides excellent corrosion resistance
- These are versatile and extremely durable wrapped bearings and can be used in many applications. Feel free to contact us for a discussion about how PTFE lined wrapped bearings could fit into your project.

**WMU-B & WMU-SS BRONZE BACKING STRIP**

In addition to the standard steel-backed, PTFE lined wrapped bearings we also offer our WMU-B and WMU-SS range with a bronze or stainless steel backing strip for applications where the standard steel is not suitable. Range, dimensions and tolerances are exactly the same as the standard PTFE lined wrapped bearings.

# WRAPPED ACETAL LINED BEARINGS

Bowman WMX range of wrapped acetal lined bearings is suitable for rotary and oscillating movement applications. They benefit from long re-lubrication intervals, no absorption of water, outstanding damping behaviours and have a low susceptibility to edge loading.

The WMX range is ideal for the automotive, machine building and agricultural industries and indeed any application where lubricant cannot be supplied continuously.

Just a few examples of where our WMX range is used are as follows:

- Rear chassis hinges
- Articulation joints
- Spindles of drills
- Gearboxes & clutches
- Grinding and milling machines

**STRUCTURE**

- WMX wrapped acetal lined bearings have a high wear resistance and low friction even with very small quantities of lubricant
- The surface carries a pattern of circular indents which should be filled with grease on assembly
- Low carbon steel gives exceptionally high load carrying capacity and excellent heat dissipation

Bowman WMX range of wrapped acetal bearings can hugely reduce maintenance costs on projects large and small and are stocked in metric plain, imperial plain, metric washers. Imperial washers, metric strip and imperial strip.