How does it work?

A fundamental principle of the database is that it provides information for a designer to explore the optimum use of PM for existing and new applications.

Whilst every effort has been made to ensure the quality of the data provided, the database is not ultimately a substitute for direct contact with manufacturers.

Therefore, following your search, the database provides information on the relevant trade association member companies, who produce parts from the type of grades you have identified. This enables you, the customer, to make direct contact to discuss your suggested solution.

Sponsoring Organisations

The GPMD was developed in a co-operation between the 3 leading PM Trade Associations.

European Powder Metallurgy Association

www.epma.com

Metal Powder Industries Federation

www.mpif.org

Japan Powder Metallurgy Association

www.jpma.gr.jp

Log onto www.pmdatabase.com to see how PM can benefit your component designs.
This interactive database provides material property information covering a broad range of powder metallurgy (PM) material systems. Its aim is to enable designers / manufacturers of components and systems to make an informed choice about using PM materials in a wide variety of applications.

The information contained in the database has been drawn from an extensive range of sources in order to provide the world’s most comprehensive and reliable PM data source.

We live in an age where data is overwhelming but knowledge is increasingly valuable.

Why a Global PM Property database?

An established and growing industry, Powder Metallurgy needs to better inform its current and potential customers about the capabilities of its materials. Now, by using web-based technology, and through a major effort of co-ordination between technical experts from all over the world, this dream has become a reality.

The free-to-access database offers designers and engineers, in industries of all types, the opportunity to select materials that can provide new properties, new solutions and reduced costs. Since its creation and launch in 2004, over 8000 users worldwide have registered to access the database.

What are its key features?

The Global PM Property Database:

- Provides one Common Data Source for Powder Metal materials - worldwide
- Contains only data collated by teams of independent technical experts
- Uses proprietary software that enables the data to be automatically configured into a format which can be used
- Contains links to suppliers of the materials described
- Is easy to use and be available 365 days per year

The extent of the data will increase over time - making the database a living tool for your benefit.

What does the database contain?

The database is focused on the properties of ferrous and non-ferrous materials commonly used by engineering industries of different types i.e. automotive, aerospace etc.

Therefore, the database currently covers the following materials: PM Steels and Stainless Steels from 6.4 gm/cc upwards, Powder Forged Steels and bearing alloys, non-ferrous materials and PM grades used in Metal Injection Moulding. It identifies key variations in processing conditions including: as sintered, heat treated and warm compacted and also includes fatigue data on certain grades including SN Curves.

The data, representing many thousands of tests on hundreds of different material grades, has been collected from a wide range of sources from many countries. It represents an average figure for performance under certain test conditions and so takes the form of typical and statistical ranges and not guaranteed minimum properties. In this way it provides the most realistic information.

The extent of the data will increase over time - making the database a living tool for your benefit.