

1800 Series

Compression Molded Compounds based on RYTON™ PPS



HOERBIGER's Engineered Materials provide reliable composite manufacturing of PTFE, PPS, PEEK, PBI Blends, EXTEM® and other specialty compounds.

Our proprietary engineered materials have exceptional resistance to high pressure and high temperature (HPHT) applications.

The 1800 Series is a group of compression molded compounds that are based on Polyphenylene Sulfide and employ carbon fiber reinforcement, graphite, PTFE, molybdenum disulfide, and other modifiers to enhance their chemical and physical properties.

Typical Physical Properties

These materials are ideal for planer and spherical bearing applications in lubricated or non lubricated service. Lubrication may be in the form of acids or bases or salt water, or any liquid which can form a supportive layer.

This series is characterized by high lubricity, but no creep like PTFE. They do not hydrolyze like the polyamides. They are not as fragile as carbon. They are not porous and do not absorb moisture. Their excellent thermal and chemical resistant properties also make them very suitable for use in high temperature and corrosive environments.

Property	1832	1833	1834	1836	1838
Specific gravity	1.55	1.62	1.6	1.89	1.57
Tensile strength, lb/in ²	10,000	9,800	10,000	9,700	9,200
Elongation@break, %	3	3	3	3	3
Flexural strength, lb/in ²	17,000	15,000	10,500	11,400	19,000
Flexural modulus, 106 lb/in ²	1.6	1.5	1.2	2.2	-
Coefficient of linear expansion, 10 ⁻⁵ in/in °F	2	2	2	1	1
Impact strength, ft-lb/in. @ 75°	0.23	0.23	0.17	0.25	0.25
Compressive strength, lb/in ²	21,800	22,400	-	24,000	-
Hardness	83	86	86	85	86
Maximum temperature in °F	-	-	450-475	-	-

Applications

- piston rings and rider bands
- structural components
- automotive
- oil well parts
- bearings and bushings
- packing back-up rings
- electrical/electronic parts
- pump vanes

These materials are available as compression molded bar, tube and plate stock.

Our fully equipped machine shop also provides finished machined parts.

Consult HOERBIGER Corporation of America, Inc., to ensure the correct material is specified. Due to the nature of polymeric materials, all values are approximate and subject to change without notice.