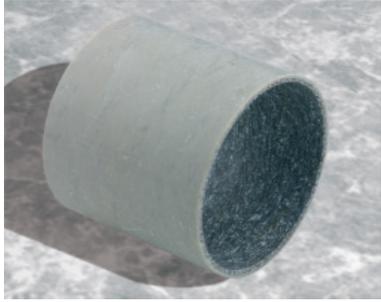
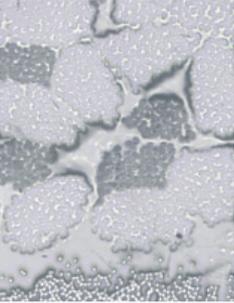


HPM™ Bearing Material	Characteristics	Applications
 	<ul style="list-style-type: none"> • Specifically developed for hydropower applications • High load capacity • Excellent shock and edge loading capacity • Low friction, superior wear rate and bearing life • Excellent corrosion resistance • Dimensional stability – low water absorption, no swelling • Environmentally friendly 	<p>Industrial</p> <p>Servo-motor bearings, operating ring sliding segments, linkage bearings, wicket gate bearings, guide vane bearings, intake gate sliding segments, intake gate roller bearings, spillway gate bearings, trash rate bearings, fish screen bearings, trunnion bearings, blade bearings, injector bearings, deflector bearings, ball and butterfly trunnion bearings, etc.</p>

Composition & Structure	Operating Conditions		Availability
<p>Composite Material</p> <p>Sliding Layer Continuous wound PTFE and high-strength fibres encapsulated in a self-lubricating, high temperature epoxy resin</p> <p>Backing Continuous wound glass fibre encapsulated in high temperature epoxy resin</p>	<p>dry</p> <p>oiled</p> <p>greased</p> <p>water</p> <p>process fluid</p>	<p>very good</p> <p>fair</p> <p>poor</p> <p>very good</p> <p>fair</p>	<p>Ex stock</p> <ul style="list-style-type: none"> • N/A <p>To order</p> <ul style="list-style-type: none"> • Cylindrical bearings diameters up to 500 mm (20 inches)

Microsection	Bearing Properties	Unit	Value
 <p>Sliding layer</p> <p>Backing</p>	<p>Dry</p> <p>Maximum sliding speed v</p> <p>Maximum pv factor</p> <p>Coefficient of friction f</p> <p>Grease lubrication</p> <p>Maximum sliding speed v</p> <p>Maximum pv factor</p> <p>Coefficient of friction f</p> <p>General</p> <p>Maximum temperature T_{max}</p> <p>Minimum temperature T_{min}</p> <p>Maximum load p static</p> <p>Maximum load p dynamic</p> <p>Shaft surface finish R_a *</p> <p>Shaft hardness - normal</p> <p>Shaft hardness - for longer service life</p>	<p>m/s</p> <p>MPa x m/s</p> <p>–</p> <p>m/s</p> <p>MPa x m/s</p> <p>–</p> <p>°C</p> <p>°C</p> <p>MPa</p> <p>MPa</p> <p>µm</p> <p>HB</p> <p>HB</p>	<p>0.13</p> <p>1.23</p> <p>0.05-0.30</p> <p>-</p> <p>-</p> <p>-</p> <p>+160</p> <p>-195</p> <p>140</p> <p>140</p> <p>0.2-0.8</p> <p>>350</p> <p>>480</p>

* Alternative shaft hardnesses and shaft surface finish is possible, depending on the application. Please contact your local GGB representative.