

Hybrid Ceramic Bearings

The retainer of the hybrid ceramic bearing is bearing steel (GCr15) or stainless steel (440, 304, 316 stainless steel), and the rolling elements are ceramic balls. The difference of materials determines the difference of bearing service temperature and environment:

Ferrule	Ball	Retainer	Maximum Service Temperature	Decay Resistance	Application Occasions
GCr15	ZrO ₂ /Si ₃ N ₄	PA66/UPE/PP	80°C	Not Recommended	Semiconductor equipment, LCD equipment, food equipment, plating equipment, chemical equipment, textile equipment, medical equipment, etc.
GCr15	Si ₃ N ₄	PTFE/GCr15/SUS304/PEEK	180°C	Not Recommended	
440	ZrO ₂ /Si ₃ N ₄	PA66/UPE/PP	80°C	Good	
440	Si ₃ N ₄	PTFE/SUS304/PEEK	180°C	Good	
304	ZrO ₂ /Si ₃ N ₄	PA66/UPE/PP	80°C	Excellent	
304	Si ₃ N ₄	PTFE/SUS304/PEEK	180~200°C	Excellent	
316	Si ₃ N ₄	PTFE/PA66/UPE/PP/GCr15/SUS304/PEEK	300°C	Excellent	
316	Si ₃ N ₄	PTFE/PA66/UPE/PP/GCr15/SUS304/PEEK	300°C	Excellent	
316	ZrO ₂	PTFE/PA66/UPE/PP/GCr15/SUS304/PEEK	180°C	Excellent	