

What is the maximum temperature limit of RBI's standard steel bearings? by Mike Mortensen - Director of Engineering RBI-USA

The maximum operating temperature for a bearing is based on the temperature limitations of the materials used in the bearing. Essentially, the material with the lowest temperature limit determines the highest temperature that the bearing can operate properly. Table 1 shows the approximate maximum useful temperature for a variety of bearing materials used in RBI's standard bearings. From the table, it can be seen that RBI's standard 52100 steel bearings are not recommended for continuous use in temperatures above 250°F

Table 1. Maximum useful temperature for bearing materials.

Bearing Component	Material	Maximum Useful Temperature	
Rings/Balls	52100 Steel	~250°F	
Cages	Nylon 6/6	~230°F to ~250°F	
Cayes	Pressed Steel	~400°F to ~450°F	
Seals	Buna N Rubber	~250°F	
Lubricant	Polyurea Grease	~350°F	

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