

SPACEA Series Bearings

Specifications of SPACEA Series Bearings

The table below shows the principal specifications of NSK's SPACEA Series bearings and indicates their suitability for various operating conditions.

	Operating conditions					Requirements	Bearing		conditions		Technical data on page(s) ...	Table of dimensions on page ...	Remarks
	Temperature	Air	Vacuum	Corrosive conditions	Magnetic fields		Inner ring / Outer ring	Balls	Cages	Grease			
Bearings for clean environments	Room temperature	○	○			Low dust	Martensite stainless steel	Martensite stainless steel	Austenite stainless steel or resin	Clean Grease	3, 15, 23	11	<ul style="list-style-type: none"> • In corrosion resistant bearings, balls and inner and outer rings are ceramic • In non-magnetic bearings, balls and inner and outer rings are ceramic • In insulated bearings, either only balls or balls and inner and outer rings are ceramic
	up to 200°C	○	○						Austenite stainless steel	Fluorine grease	3, 15		
	up to 250°C	○	○			Low dust, Corrosion resistance, Non-magnetism, Insulation	Martensite stainless steel or Ceramics	Martensite stainless steel or Ceramics	Fluororesin	–			
	up to 300°C	○	○						Austenite stainless steel + special fluororesin coating	–	4, 6, 15		
Bearings for vacuum conditions	Room temperature		○			Lubricity		Martensite stainless steel	Austenite stainless steel	Fluorine grease		12	For details on bearing applications in X-ray rooms, see page 17.
	up to 300°C	○	○			Lubricity, Heat resistance	Martensite stainless steel	Martensite stainless steel + molybdenum disulfide coating	Austenite stainless steel + molybdenum disulfide coating	–	18, 19		
	up to 400°C		○					Martensite stainless steel + lead coating	Austenite stainless steel	–	17, 18		
								Martensite stainless steel + silver coating		–			
Bearings for corrosive environments	Room temperature	○		○			Martensite stainless steel	Martensite stainless steel or Ceramics	Austenite stainless steel or Fluororesin	Waterproof grease		13	
	up to 200°C	○	○	○		Corrosion resistance	Martensite stainless steel + corrosion resistant coating	Martensite stainless steel + corrosion resistant coating or Ceramics	Fluororesin	–	5, 16, 17		
		○	○	○			Precipitation hardened stainless steel	Ceramics		–			
		○	○	○	○		Ceramics			–			
Bearings for high temperatures	up to 400°C	○				Heat resistance	Martensite stainless steel	Martensite stainless steel or Ceramics	Graphite-based self-lubricating material	–	19	14	
	up to 500°C	○					Ceramics	Ceramics		–			
Non-magnetic bearings	Room temperature	○	○		○	Non-magnetism	Non-magnetic materials	Ceramics	Austenite stainless steel or resin	Fluorine grease		14	
	up to 200°C	○	○	○	○		Ceramics		Fluororesin	–			
Bearings for low temperatures	down to -270°C	○				Lubricity	Martensite stainless steel	Martensite stainless steel	Fluororesin	–	20	20	For applications of bearings in liquid gas submerged pumps, see page 20.
Radiation resistant bearings	up to 120°C	○				Radiation resistance	Bearing steel	Bearing steel	Cold-rolled steel	Radiation resistant grease			
Bearings for high speeds	Room temperature	○				High speed tolerance	Bearing steel or Martensite stainless steel	Ceramics	Resin	High-speed grease, Oil-air or Jet oiling	20		For details of bearings for use in machine tools, see page 20.

Notes: The parts of the bearing coated with special fluororesin coating, molybdenum disulfide, lead, or silver vary according to the conditions in which the bearing is to be used. For details, please contact NSK.

