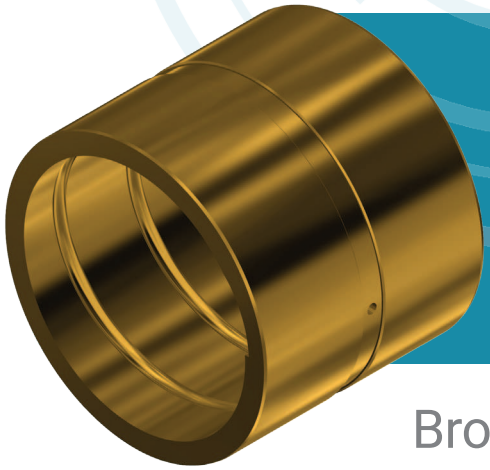
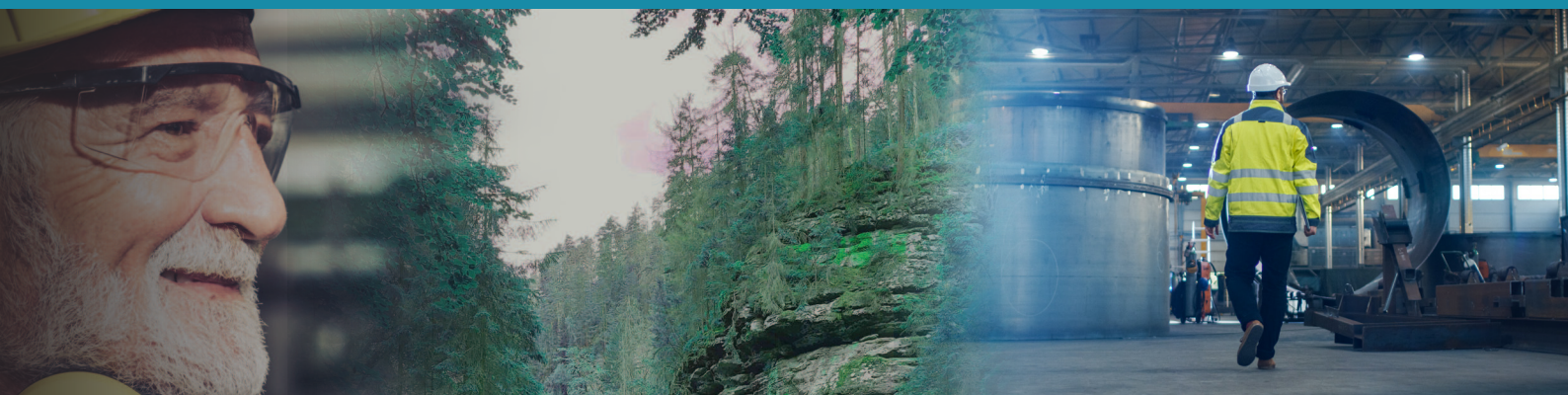
HOWA

DATASHEET
HOWA-BRZ



Bronze Material
in Various
Alloys



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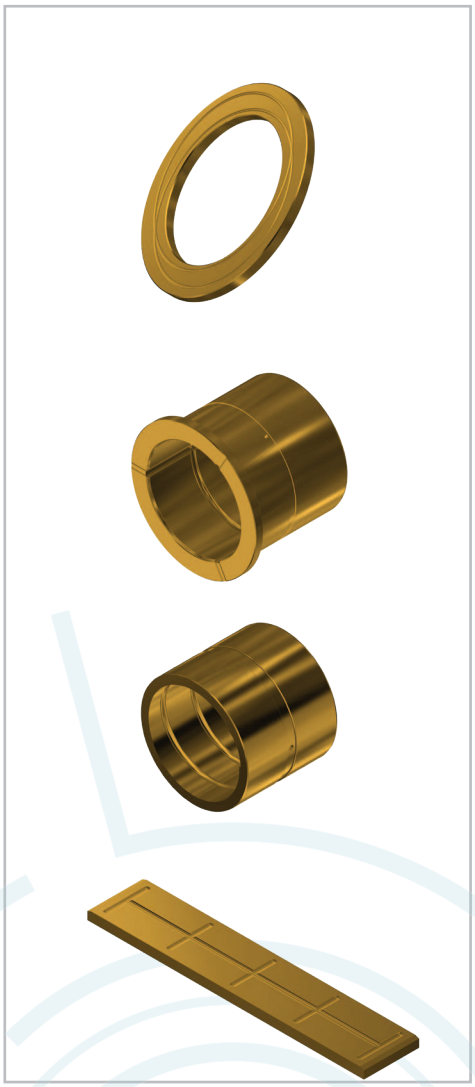


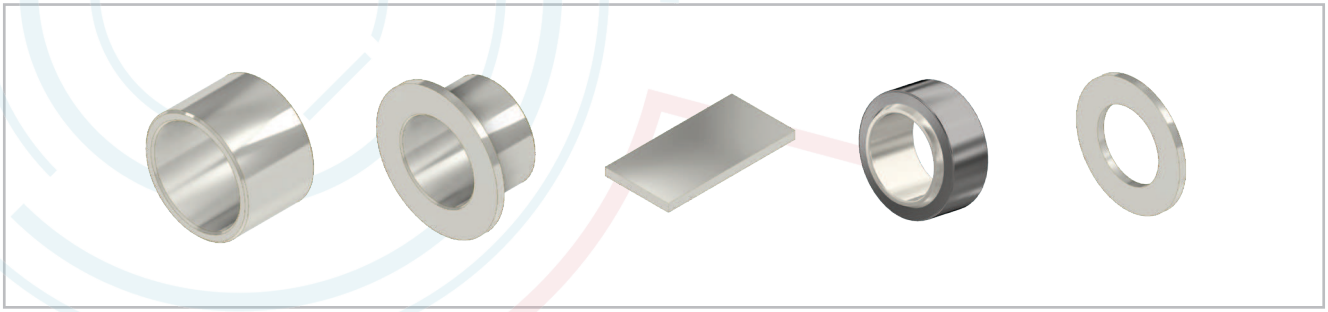
FEATURES

- Grease-dependant bearing material, available in various grades with different mechanical properties
- Covering applications with highest load demands or fast sliding speeds

TYPICAL INDUSTRIES

- Mining Equipment
- Construction and Lifting Equipment
- Printing Machines
- Oil-Lubricated Applications with High Speeds

AVAILABLE GEOMETRIES



HOWA-BRZ

BEARING PARAMETERS

DIN EN 1982	Common Name	Yield Strength	Tensile Strength	Strain	E-Modulus	Hardness	Load Capacity Dynamic (1)	Load Capacity Static (max.)	Coefficient of Friction (3)	Max. Sliding Speed (3)	Temperature Strain		Max. Sliding Speed (2)	Application
		N/mm²	N/mm²	%	N/mm²	HB	N/mm²	N/mm²		m/s	min.°C	max.°C	m/s	
CuPb15Sn	High-Leaded Bronze	90	180	8	75000	60	50	130	0.06-0.10	3	-40	250	10	For high sliding speeds, imbedding of foreign particles and edge loads possible
CuSn7Zn4Pb7	Leaded Bronze	120	260	12	106000	70	60	160	0.06-0.10	2.5	-40	250	8	Excellent sliding properties, also with limited grease supply, edge loads permitted
CuSn12	Phosphor Bronze	150	280	5	112000	90	70	220	0.06-0.20	2	-40	300	8	High loads, small misalignments permitted, sea-water resistant
CuAl10Fe5Ni5	Aluminium Bronze	280	650	13	122000	150	120	340	0.08-0.12	2	-40	350	conditionally possible	Highest dynamic loads (pulsating and alternating), extremely wear-resistant, ideal for sea-water applications
CuZn25Al5Mn4Fe3	Manganese Bronze	480	750	8	115000	200	120	400	0.08-0.12	1	-40	350	not recommended	Extreme (static) loads und slow sliding speeds, fresh water resistant

(1) dependent on pressure resistance of grease ; (2) hydrodynamic, ie. oil-or waterfilm ; (3) grease lubricated

MATING COMPONENTS

Housing Bore	Tolerance	H7
Shaft	Tolerance	h7 (but others permitted due to flexibility during bearing machining)
	Hardness	Min. HB70 higher than selected alloy
	Surface Roughness, recommended	Ra 0.2 - 0.8
	Material	Depending on application, can be recommended by HOWA