Aluminium Bronzes AERIS

	AERIS 1350	AERIS 1360	AERIS 1365	AERIS 1370	AERIS 1355
Alloy	CuAl10Fe3	CuAl13Fe3Mn2	CuAl14Fe4Mn2Co	CuAl14Fe4MnCo	CuAl10Ni5Fe4
Cr	-	-	-	-	-
Zr	-	-	-	-	-
Co	-	-	1,0	2,0	-
Ni	-	-	-	-	4,8
Be	-	-	-	-	-
Al	10,0	13,0	14,0	14,0	10,5
Sl	-	-	-	-	-
Fe	3,0	3,0	4,0	4,0	4,8
Mn	2,0	2,0	2,0	2,0	1,5
Rest	макс.0,5	макс.0,5	макс.0,5	макс.0,5	макс.0,5
Cu	ост.	ост.	ост.	ост.	ост.
Hardness (HB)	190-220	270-330	360-400	400-450	270-290
Tensile Strength (MPa)	650-750	700-800	550-700	400	850-950
Yield Strength (MPA)	350-380	350-450	>500	400	700-800
% Elongation (AS)	14	1	0	0	4-6
Density (g/cm3)	7,45	7,25	7,25	7,25	7,45
Electrical Conductivity (% IACS)					
Thermal Conductivity (W/mK)	63	65	50	50	42
Material Characteristics	Medium hardness, mostly used aluminium bronze for all applications requiring wear resistance, fatigue resistance. Together with ductility, toughness and good sliding properties.	Remarkable because of its hardness and wear resistance together with very good sliding characteristics. High pressure resistance/	Very good fraction properties with an extreme hardness and excellent compressive strength.	The hardest aluminium bronze. Good friction properties with an utmost hardness and excellent compressive strength. Because of brittleness, machining should be done carefully.	It is used where higher mechanical properties at elevated temperatures together with corrosion-resistant properties are demanded.
Applications	Bearing, bushings, gears, worm wheels, sleeves, guides, wear plates, screw nuts, slippers.	Wear plates, bushings, die rings, bending tools, forming rolls, inserts, polishing supports, straightening chucks.	Ideal drawing and forming die material. Deep-drawing of stainless steel, tube and pipe forming , bending and welding rolls.	Deep-drawing dies of stainless, tune and pipe forming and welding tools.	Bending dies (shoes, wiper dies and mandrels) for the tube banding industry, wear and guide plates.