



**I. & E. PAPALEXIS P.C.**  
**TRADING FERROUS & NON-FERROUS METAL SCRAP**  
**TRADING SOLID & HOLLOW ROUND BARS**

12ο ΠΕΟ ΚΟΡΙΝΘΟΥ-ΑΡΓΟΥΣ  
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**CONTINUOUS CASTING**

**SOLID ROUND BARS UP TO 3000mm LENGTH, OF PHOSPHOR - ALUMINIUM BRONZE PRODUCED BY CONTINUOUS CASTING**

DIAMETER (mm)	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	130
kg/m	3	4,5	6,5	8,7	11,5	14,5	17,8	21,5	25,4	29,7	34,5	39,5	44,7	50,5	56,5	62,8	69,7	76,7	84,2	92	100	120

**ON REQUEST WE CAN ALSO PROVIDE INTERMEDIATE DIMENSIONS NOT LISTED**

**HOLLOW ROUND BARS UP TO 3000mm LENGTH, OF PHOSPHOR - ALUMINIUM BRONZE PRODUCED BY CONTINUOUS CASTING**

EXTERNAL DIAMETER (mm)	40	40	40	45	45	45	50	50	50	55	55	55	55	60	60	60	60	60	65	65	65	
INTERNAL DIAMETER (mm)	15	20	25	15	20	25	20	25	30	20	25	30	35	20	25	30	35	40	20	25	30	
kg/m	9,2	8,05	6,85	12,1	10,9	9,35	14,1	12,53	10,8	17,6	16,1	14,2	12,1	21,4	19,9	18,1	15,9	13,4	25,6	24,1	22,2	
EXTERNAL DIAMETER (mm)	65	65	65	70	70	70	70	70	70	75	75	75	75	75	75	80	80	80	80	80	80	
INTERNAL DIAMETER (mm)	35	40	45	20	25	30	35	40	50	25	30	35	40	45	50	25	30	35	40	45	50	
kg/m	20,1	17,6	14,7	30,1	28,6	26,8	24,6	22,1	16,1	33,4	31,6	29,4	26,9	24,1	20,9	38,6	36,8	34,6	32,1	29,2	26,1	
EXTERNAL DIAMETER (mm)	80	85	85	85	85	85	85	85	90	90	90	90	90	90	100	100	100	100	100	100	110	
INTERNAL DIAMETER (mm)	55	25	30	35	40	45	50	55	30	35	40	50	60	65	30	35	40	50	60	70	35	
kg/m	22,6	44,1	42,3	40,1	37,6	34,8	31,6	28,1	48,1	46	43,4	37,4	30,1	25,9	60,8	58,6	56,1	50,1	42,8	34,1	72,9	
EXTERNAL DIAMETER (mm)	110	110	110	110	110	120	120	120	120	120	120											
INTERNAL DIAMETER (mm)	40	50	60	70	80	40	50	60	70	80	90											
kg/m	70,4	64,4	57	48,3	38,3	85,4	79,4	72,1	63,3	53,3	42,1											

**ON REQUEST WE CAN ALSO PROVIDE INTERMEDIATE DIMENSIONS NOT LISTED**

**CENTRIFUGAL CASTING**

**HOLLOW ROUND BARS PRODUCED BY CENTRIFUGAL CASTING  
 OF PHOSPHOR - ALUMINIUM BRONZE  
 FROM 100mm UP TO 1000mm AND INTERNAL DIAMETER ON ORDER**

# TRADING OF SOLID AND HOLLOW ROUND BARS

## PHOSPHOR BRONZE AND ALUMINIUM BRONZE

### CHEMICAL COMPOSITION (%)

STANDARD	NAME	COPPER (Cu)	TIN (Sn)	ZINC (Zn)	LEAD (Pb)	PHOSPHOR (P)	ALUMINIUM (Al)	NICKEL (Ni)	IRON (Fe)
DIN 1705	RG 7	81,0 - 85,0	6,0 - 8,0	3,0 - 5,0	5,0 - 7,0	0,05		2,00	0,25
DIN 1705	RG 10	86,0 - 89,0	9,0 - 11,0	1,0 - 3,0	1,50	0,05		2,00	0,25
DIN 1705	RG 12	87,0 - 89,0	11,0 - 13,0	0,50	1,00	0,05		1,00	0,20
DIN 1705	CuSn12Pb	84 - 87	41579,00	1,00	41306,00				
DIN 1714	CuAl10Fe5Ni5 (GZ-NiAlBz F70)	76,0 - 80,0	0,20	0,30	0,10		9,0 - 12,0	4,5 - 6,5	4,5 - 6,5

### MECHANICAL PROPERTIES

STANDARD	NAME	TENSILE STRENGTH (N/mm <sup>2</sup> )	Yield stress (N/mm <sup>2</sup> )	ELONGATION (%)	HARDNESS (HB)
DIN 1705	RG 7	270 - 300	120 - 140	14 - 18	80 - 85
DIN 1705	RG 10	280 - 350	150 - 170	7,0 - 12,0	85 - 95
DIN 1705	RG 12	280 - 350	150 - 170	7,0 - 12,0	85 - 95
DIN 1705	CuSn12Pb (2.1061.03)	280 - 350	150 - 180	7,0-12,0	90 - 100
DIN 1714	CuAl10Fe5Ni5	600 - 700	280 - 320	12,0 - 18,0	170 - 190

### PHYSICAL PROPERTIES

STANDARD	NAME	PROPERTIES
DIN 1705	RG 7	MATERIAL OF MEDIUM MECHANICAL PROPERTIES WITH GOOD RESISTANCE TO CORROSION AND HIGH FRICTION COEFFICIENT
DIN 1705	RG 10	MATERIAL WITH HIGH MECHANICAL PROPERTIES AND HIGH RESISTANCE TO CORROSION FROM SEE WATER. ALSO HIGH FRICTION COEFFICIENT
DIN 1705	RG 12 - CuSn12Pb	MATERIAL WITH HIGH MECHANICAL PROPERTIES AND HIGH RESISTANCE TO CORROSION FROM SEE WATER. ALSO HIGH FRICTION COEFFICIENT
DIN 1714	CuAl10Fe5Ni5 (GZ-NiAlBz F70)	HARD MATERIAL WITH HIGH RESISTANCE TO CORROSION, TARNISH AND FATIGUE

### MAIN APPLICATIONS

STANDARD	NAME	APPLICATION
DIN 1705	RG 7	BEARINGS, ROLLS WITH MULTIPLE APPLICATIONS (SUCH AS CRANE ROLLS, RINGS) GROMMETS OF MEDIUM AND HIGH FATIGUE
DIN 1705	RG 10	BEARINGS, GEARS, HELICAL GEARS, GEARWHEELS, PARTS OF MACHINES OF MIDDLE AND HIGH FATIGUE SUCH AS PAPER PRODUCTION MACHINES, FOOD PRODUCTION MACHINES, WOOD CUTTING MACHINES E.T.C.
DIN 1705	RG 12 - CuSn12Pb	
DIN 1714	CuAl10Fe5Ni5 (GZ-NiAlBz F70)	DUE TO HIGH RESISTANCE TO CORROSION IT IS IUSED TO SHIPPING INDUSTRY (PROPELERS, SCREWS, BEARINGS), TO OIL INDUSTRY AND ALSO TO INDUSTRY FOR PRODUCING PAPER AND FOOD