

**EN 12163, Copper and copper alloys — Rod for general purposes**

Designations		Diameter			Width across - flats			Tensile Strength	0,2% proof strength			Elongation			Hardness		
Material		Material Condition	mm			mm			Rm (Mpa)	Rp 0,2 (Mpa)			A 100 (%)	A 11,3 (%)	A (%)	HBW	
Number	Symbol		from	over	up to and including	from	over	up to and including	min.	min.	max.	min.	min.	min.	min.	max.	
CW719R	CuZn39Sn1	M	All			All			As manufactured								
		R340	5	-	80	5	-	60	340	140	-	-	15	20	-	-	
		H080	5	-	80	5	-	60	-	-	-	-	-	-	80	120	
		R400	5	-	50	5	-	40	400	180	-	-	10	15	-	-	
		H105	5	-	50	5	-	40	-	-	-	-	-	-	105	145	
		R450	5	-	25	5	-	20	450	250	-	-	5	10	-	-	
		H120	5	-	25	5	-	20	-	-	-	-	-	-	120	160	

**EN 12165, Copper and copper alloys — Wrought and unwrought forging stock**

Designations		Diameter		Hardness		
Material		Material Condition	mm		HB	
Number	Symbol		from	up to and including	min.	max.
CW719R	CuZn39Sn1	M	All		As manufactured	
		H080	8	80	80	150