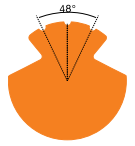


Contact wire made of CuMg0.2 according to EN 50149



Values for CuMg0.2 alloy (normal conductivity)

technical data		nominal cross section				
		80	100	107	120	150
min. tensile strength R_m ²⁾	N/mm ²	460	450	440	430	420
min. breaking load ¹⁾ F_m	kN	35.7	43.7	45.7	50.1	61.1
Percentage Elongation after fracture A_{200}	%	3 – 10	3 – 10	3 – 10	3 – 10	3 – 10
Modulus of elasticity E	kN/mm ²	120	120	120	120	120
Half-hard point	°C	≥ 370	≥ 370	≥ 370	≥ 370	≥ 370
Electrical conductivity χ at 20 °C	m/(Ohm*mm ²)	≥ 44.6	≥ 44.6	≥ 44.6	≥ 44.6	≥ 44.6
Electrical conductivity χ at 20 °C	% IACS	≥ 77	≥ 77	≥ 77	≥ 77	≥ 77
Specific electrical resistance ρ_{el} at 20 °C	10 ⁻⁸ Ohm*m	≤ 2.240	≤ 2.240	≤ 2.240	≤ 2.240	≤ 2.240
Electrical resistance R	Ohm/km	≤ 0.289	≤ 0.231	≤ 0.216	≤ 0.192	≤ 0.154
Temperature coefficient α_{el} of electrical resistance	10 ⁻³ /K	3.1	3.1	3.1	3.1	3.1
Linear coefficient of thermal expansion α	10 ⁻⁵ /K	1.7	1.7	1.7	1.7	1.7
Specific mass ρ	10 ³ kg/m ³	8.89	8.89	8.89	8.89	8.89

¹⁾ calculation based on the minimum cross section

²⁾ different tensile strengths on request

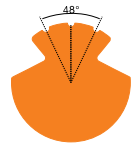
Values for CuMg0.2 alloy (high conductivity)

technical data		nominal cross section				
		80	100	107	120	150
min. tensile strength R_m ²⁾	N/mm ²	460	450	440	430	420
min. breaking load ¹⁾ F_m	kN	35.7	43.7	45.7	50.1	61.1
Percentage Elongation after fracture A_{200}	%	3 – 10	3 – 10	3 – 10	3 – 10	3 – 10
Modulus of elasticity E	kN/mm ²	120	120	120	120	120
Half-hard point	°C	≥ 370	≥ 370	≥ 370	≥ 370	≥ 370
Electrical conductivity χ at 20 °C	m/(Ohm*mm ²)	≥ 46.4	≥ 46.4	≥ 46.4	≥ 46.4	≥ 46.4
Electrical conductivity χ at 20 °C	% IACS	≥ 80	≥ 80	≥ 80	≥ 80	≥ 80
Specific electrical resistance ρ_{el} at 20 °C	10 ⁻⁸ Ohm*m	≤ 2.155	≤ 2.155	≤ 2.155	≤ 2.155	≤ 2.155
Electrical resistance R	Ohm/km	≤ 0.278	≤ 0.222	≤ 0.208	≤ 0.185	≤ 0.148
Temperature coefficient α_{el} of electrical resistance	10 ⁻³ /K	3.1	3.1	3.1	3.1	3.1
Linear coefficient of thermal expansion α	10 ⁻⁵ /K	1.7	1.7	1.7	1.7	1.7
Specific mass ρ	10 ³ kg/m ³	8.89	8.89	8.89	8.89	8.89

¹⁾ calculation based on the minimum cross section

²⁾ different tensile strengths on request

Contact wire made of CuMg0.5 according to EN 50149



Values for CuMg0.5 alloy

technical data		nominal cross section				
		80	100	107	120	150
min. tensile strength R_m ²⁾	N/mm ²	520	510	500	490	470
min. breaking load ¹⁾ F_m	kN	40.4	49.5	51.9	57.0	68.4
Percentage Elongation after fracture A_{200}	%	3 – 10	3 – 10	3 – 10	3 – 10	3 – 10
Modulus of elasticity E	kN/mm ²	120	120	120	120	120
Half-hard point	°C	≥ 375	≥ 375	≥ 375	≥ 375	≥ 375
Electrical conductivity χ at 20 °C	m/(Ohm*mm ²)	≥ 36.0	≥ 36.0	≥ 36.0	≥ 36.0	≥ 36.0
Electrical conductivity χ at 20 °C	% IACS	≥ 62	≥ 62	≥ 62	≥ 62	≥ 62
Specific electrical resistance ρ_{el} at 20 °C	10 ⁻⁸ Ohm*m	≤ 2.778	≤ 2.778	≤ 2.778	≤ 2.778	≤ 2.778
Electrical resistance R	Ohm/km	≤ 0.358	≤ 0.286	≤ 0.268	≤ 0.239	≤ 0.191
Temperature coefficient α_{el} of electrical resistance	10 ⁻³ /K	2.7	2.7	2.7	2.7	2.7
Linear coefficient of thermal expansion α	10 ⁻⁵ /K	1.7	1.7	1.7	1.7	1.7
Specific mass ρ	10 ³ kg/m ³	8.89	8.89	8.89	8.89	8.89

¹⁾ calculation based on the minimum cross section

²⁾ different tensile strengths on request