

Cladding composite      **Inox-Cu-Inox**  
(Copper, double-side clad with Stainless Steel)

### Brief description

Inox-Cu-Inox is a double side, cold rolled clad material combining high electrical and thermal conductivity of Copper with high strength, stiff, weldable and corrosion resistant Stainless Steel.

### Standard - raw materials

Position	Metal	Grade	Material-No.	Specification
<b>Core</b>	Copper	Cu-OF <i>OF Grade 2</i>	CW007A <i>C10200</i>	DIN EN13599 <i>ASTM B152</i>
		Cu-PHC <i>OFXLP</i>	CW020A <i>C 10300</i>	DIN EN13599 <i>ASTM B152</i>
<b>Cladding Layer</b>	Stainless Steel	X2 CrNiMo 17-12-2	1.4404 <i>316 L</i>	EN 10088-2 <i>ASTM 240</i>
		X4 CrNi18-12	1.4303 <i>305</i>	EN 10088-2 <i>ASTM 240</i>

### Chemical composition [%]

Copper	Standard	Cu	P	Bi	Pb	0
<b>Cu-OF</b> CW007A	EN 13599	min. 99.95	max. 0.005	max. 0.0005	max. 0.005	-
<b>OF Grade 2</b> <i>C10200</i>	<i>ASTM B152</i>	<i>min. 99.95 incl Ag</i>	-	-	-	<i>10 ppm max.</i>
<b>Cu-PHC</b> CW020 A	EN 13599	min. 99.95	max. 0.005	max. 0.0005	max. 0.005	-
<b>OFXLP</b> <i>C10300</i>	<i>ASTM B152</i>	<i>min. 99.95 incl Ag and P</i>	<i>0.001 - 0.005</i>	-	-	-

  

Stainless Steel	Standard	C	Si	Mn	P	S	Ni	Cr	N
<b>X2 CrNiMo 17-12-2</b> 1.4404	EN 10088-2	max. 0.03	max. 1.0	max. 2.0	max. 0.045	max. 0.015	16.5 - 18.5	10.0 - 13.0	2.00 - 2.50
<b>316 L</b>	<i>ASTM A240</i>	<i>max. 0.03</i>	<i>max. 0.75</i>	<i>max. 2.0</i>	<i>max. 0.045</i>	<i>max. 0.03</i>	<i>16.0 - 18.0</i>	<i>10.0 - 14.0</i>	<i>2.00 - 3.00</i>
<b>X4 CrNi18-12</b> 1.4303	EN 10088-2	max. 0.06	max. 1.0	max. 2.0	max. 0.045	max. 0.015	17.0 - 19.0	11.0 - 13.0	-
<b>305</b>	<i>ASTM A240</i>	<i>max. 0.12</i>	<i>max. 0.75</i>	<i>max. 2.0</i>	<i>max. 0.045</i>	<i>max. 0.03</i>	<i>17.0 - 19.0</i>	<i>10.5 - 13.0</i>	-



# Material data sheet **Inox-Cu-Inox**

## Heat spreader for smart devices



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### b) temper rolled and stretch levelled <sup>(1)</sup>

		15-75-15	20-60-20	25-50-25	30-40-30
Yield stress <sup>(2)</sup>	[MPa]	170 - 690	200 - 720	230 - 750	260 - 780
Tensile strength <sup>(2)</sup>	[MPa]	390 - 740	420 - 770	450 - 800	480 - 830
Elongation (80mm)	[%]	min. 5 - 35	min. 5 - 35	min. 5 - 35	min. 5 - 35

<sup>(1)</sup> Actual values depending on temper rolling degree

<sup>(2)</sup> Range of min. 100 MPa required based on a defined temper rolling degree

**Edge type** Slit edge  
**Delivering condition** Coils

### Remarks

All information in this material data sheet are referring to Inox-Cu-Inox based on a standard production. Modified product parameters and properties on further request.

Further product properties like layer thickness variation, cross-section hardness, surface roughness, flatness, straightness, microstructure, etc., to be discussed.