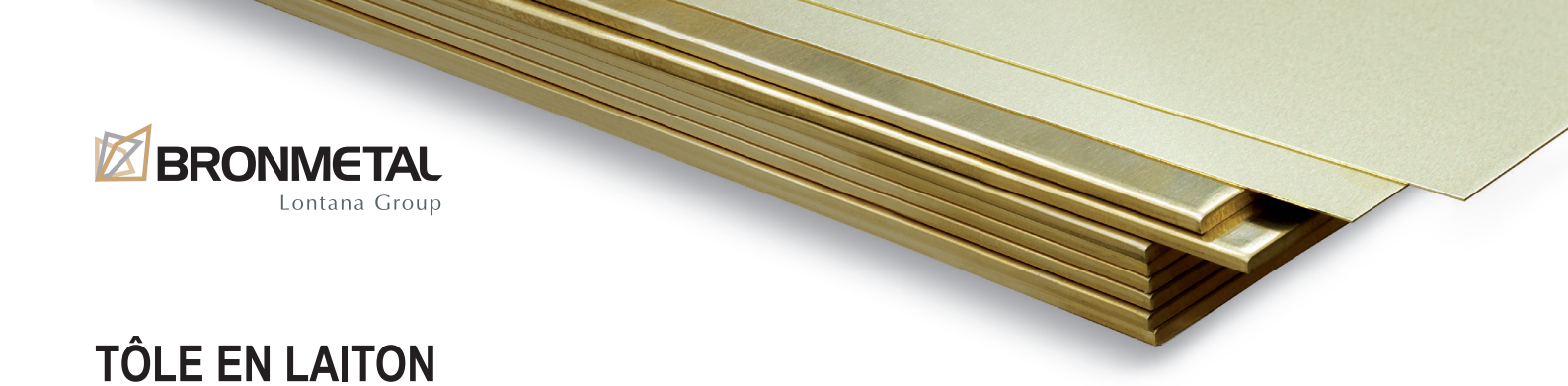


BRONMETAL
Lontana Group

# TÔLE EN LAITON
## / BRASS SHEETS

### ALLIAGES / ALLOYS

CuZn33 | CuZn26 | CuZn37

### NORMES / NORMS

EN 1652

### CARACTÉRISTIQUES MÉCANIQUES / MECHANICAL PROPERTIES

| **Designations**<br>Designations | | **Resistance à la traction**<br>Tensile strength | |
|---|---|---|---|
| **Symboliquez**<br>Symbolic | **Etat métallurgique**<br>Metallurgical state | $R_m$ | |
| | | N/mm² | |
| | | **min.**<br>**min.** | **max.**<br>**max.** |
| **CuZn33** | R280 | 300 | 370 |
| | R350 | 350 | 440 |
| | R420 | 410 | 450 |
| **CuZn36**<br>**CuZn37** | R300 | 300 | 370 |
| | R350 | 350 | 440 |
| | R410 | 410 | 490 |

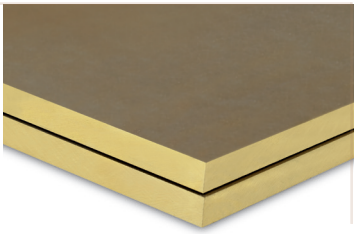
### POIDS / WEIGHTS (kg)

| **L`épaisseur nominale**<br>Nominal thickness | **Format 1000 x 2000 mm**<br>1000 x 2000 mm Dimensions |
|---|---|
| 0,5 | 8,50 |
| 0,6 | 10,20 |
| 0,8 | 13,60 |
| 1 | 17,00 |
| 1,2 | 20,40 |
| 1,5 | 25,50 |
| 2 | 34,00 |
| 2,5 | 42,50 |
| 3 | 51,00 |
| 3,5 | 59,50 |

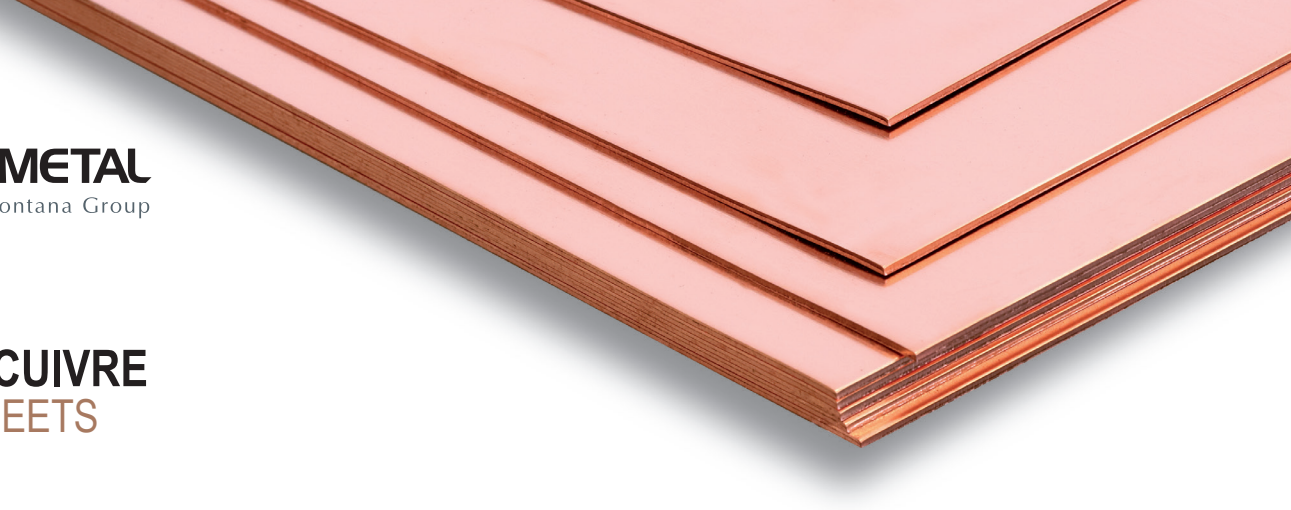
| **L`épaisseur nominale**<br>Nominal thickness | **Format 1000 x 2000 mm**<br>1000 x 2000 mm Dimensions |
|---|---|
| 4 | 68,00 |
| 5 | 85,00 |
| 6 | 102,00 |
| 7 | 119,00 |
| 8 | 136,00 |
| 10 | 170,00 |
| 12 | 204,00 |
| 15 | 255,00 |
| 20 | 340,00 |
| 25 | 425,00 |

### FORMATS COMMERCIAUX / COMMERCIAL FORMATS

| **Épaisseur (mm)**<br>Thickness (mm) | **Largeur (mm)**<br>Width (mm) | **Longueur (mm)**<br>Length (mm) |
|---|---|---|
| ≤ 5 | 1000 | 2000 |
| | 1250 | 3000 |
| ≤ 25 | 1000 | 2000 |
| > 25 - 75 | 500 | 2000 |



* Autres formats sur demande / Different formats under request
* Possibilité de découpe sur mesure / Cutting possibilities



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# TÔLE EN CUIVRE
# CUIVRE SHEETS

## ALLIAGES / ALLOYS

ETP | DHP | OF | HCP

## NORMES / NORMS

EN 1652 | EN 1653 (pour les chaudières) / (for boilers)
EN 13599 (pour les applications électriques et électroniques) / (for electrical-electronic applications)

## CARACTÉRISTIQUES MÉCANIQUES / MECHANICAL PROPERTIES

Jusqu'à 50 mm d'épaisseur (inclus) / Up to 50mm thickness (included)

| **Designations**<br>Designations | | **Resistance à la traction**<br>Tensile strength | |
|---|---|---|---|
| **Symboliquez**<br>Symbolic | **Etat métallurgique**<br>Metallurgical state | **$R_m$**<br>**N/mm²** | |
| | | **mín.**<br>**min.** | **máx.**<br>**max.** |
| **Cu-ETP**<br>**Cu-DHP**<br>**Cu-OF**<br>**Cu-HCP** | M | **Laminage de dégrossissage** / In as rolled | |
| | R200 | 200 | 250 |
| | R240 | 240 | 300 |
| | R290 | 290 | 360 |

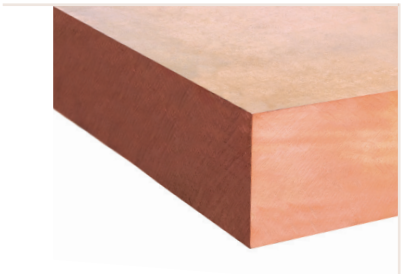
## POIDS / WEIGHTS (kg)

| **L`épaisseur nominale**<br>Nominal thickness | **Format 1000 x 2000 mm**<br>1000 x 2000 mm Dimensions |
|---|---|
| 0,5 | 8,96 |
| 0,6 | 10,752 |
| 0,8 | 14,336 |
| 1 | 17,92 |
| 1,2 | 21,504 |
| 1,5 | 26,88 |
| 2 | 35,84 |
| 2,5 | 44,8 |
| 3 | 53,76 |
| 3,5 | 62,72 |

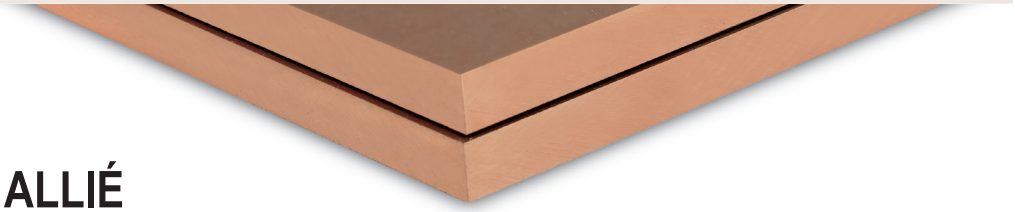
| **L`épaisseur nominale**<br>Nominal thickness | **Format 1000 x 2000 mm**<br>1000 x 2000 mm Dimensions |
|---|---|
| 4 | 71,68 |
| 5 | 89,6 |
| 6 | 107,52 |
| 7 | 125,44 |
| 8 | 143,36 |
| 10 | 179,2 |
| 12 | 215,04 |
| 15 | 268,8 |
| 20 | 358,4 |
| 30 | 537,6 |

## FORMATS COMMERCIAUX / COMMERCIAL FORMATS

| **Épaisseur (mm)**<br>Thickness (mm) | **Largeur (mm)**<br>Width (mm) | **Longueur (mm)**<br>Length (mm) |
|---|---|---|
| ≤ 5 | 1000<br>1250 | 2000 |
| | | 2500 |
| | | 3000 |
| ≤ 50 | 1000 | 2000 |
| ≥ 30 - 100 | 600 | 2000 |
| | | 3000 |



* Autres formats sur demande / Different formats under request
* Possibilité de découpe sur mesure / Cutting possibilities
* Fini Jet Wash / Jet Wash finish

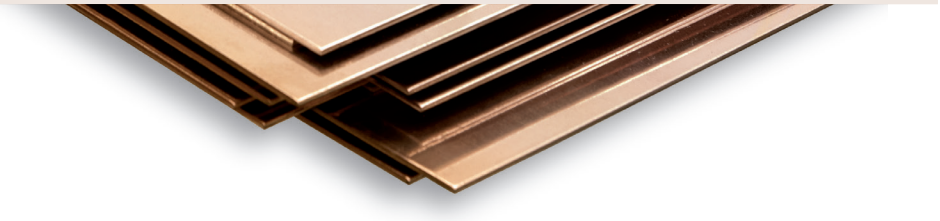


# TÔLES EN CUIVRE ALLIÉ
## / COPPER ALLOY SHEETS

### ALLIAGES / ALLOYS

| Material designation<br>Material designation | | Composition en % (fraction massique)<br>Composition in % (mass fraction) | | | | | | | | | | | | Densité<br>Density<br>g/cm3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Symbolique**<br>Symbolic | **Numérique**<br>Numerical | **Élément**<br>Element | **Cu** | **Be** | **Co** | **Cr** | **Fe** | **Mn** | **Ni** | **Pb** | **Si** | **Zr** | **Total des autres**<br>Total other | **Approx.**<br>Approx. |
| **CuCr1Zr** | CW106C | min. | Rest | - | - | 0,5 | - | - | - | - | - | 0,03 | - | 8,9 |
| | | max. | - | - | - | 1,2 | 0,08 | - | - | - | 0,1 | 0,3 | 0,2 | |

Nous avons des tôles disponibles dans des épaisseurs de 12mm a 100mm et nous avons la possibilité de couper sur mesure.
/ We have sheets available in thicknesses of 12 mm up to 100 mm and we have the possibility to cut to size.



# TÔLE DE BRONZE
## / BRONZE SHEETS

### ALLIAGES / ALLOYS

| Material designation<br>Material designation | | Composition en % (fraction massique)<br>Composition in % (mass fraction) | | | | | | | | | | | | | | | | | Densité<br>Density<br>g/cm3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Symbolique**<br>Symbolic | **Numérique**<br>Numerical | **Élément**<br>Element | **Cu** | **Al** | **As** | **Be** | **C** | **Co** | **Fe** | **Mn** | **Ni** | **P** | **Pb** | **S** | **Si** | **Sn** | **Zn** | **Total des autres**<br>Total other | **Approx.**<br>Approx. |
| **CuSn6** | CW452K | min. | Rest | - | - | - | - | - | - | - | - | 0,01 | - | - | - | 5,5 | - | - | 8,8 |
| | | max. | - | - | - | - | - | - | 0,1 | - | 0,2 | 0,4 | 0,02 | - | - | 7 | 0,2 | 0,2 | |

### CARACTÉRISTIQUES MÉCANIQUES / MECHANICAL PROPERTIES

| Material designation<br>Material designation | | Resistance à la traction<br>Tensile strength | |
|---|---|---|---|
| **Symbolique**<br>Symbolic | **Etat métallurgique**<br>Metallurgical state | $R_m$<br>N/mm² | |
| | | **min.**<br>**min.** | **max.**<br>**max.** |
| **CuSn6** | R420 | 420 | 520 |

Nous pouvons également proposer des tôles en ALUMINIUM.
/ We can also supply aluminium sheet

BRONMETAL
Lontana Group

# FINITIONS SPÉCIFIQUES
## / FINISH

### TRAITEMENT DE SURFACE STANDARD
### / STANDARD SURFACE TREATMENTS

· POLISSAGE / POLISHED:

- Mécanique / Mechanic
- Miroir / Mirror
- Nautique / Nautic

· BROSSAGE / FROSTED:

- Grain de / Grain size

80 | 120 | 150 | 180 | 220 | 320 | 400

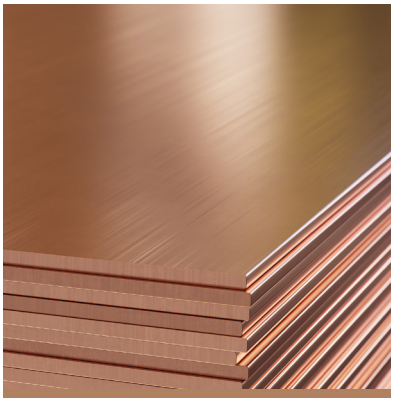
· PROTECTIONS : FILM PVC NOVACEL NORMAL ou LASER
/ COVERING PROTECTION: STANDARD NOVACEL PVC PROTECTION OR LASER:

*selon les différentes possibilités: / available on the next qualities:*

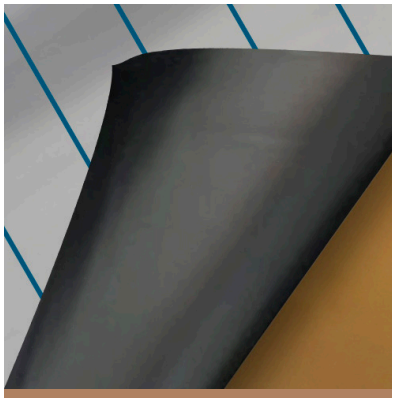
- Film plastique bleu ou détachable facilement ( 50 microns - 60 microns)
/ Blue plastic or easy removal ( 50 microns - 60 microns)
- Film plastique blanc et noir (70 microns - 80 microns)
/ White or black plastic (70 microns - 80 microns)
- Film plastique laser (4224 / 4226 / 4228 / 4329 / 4426 / 4464)
/ Laser plastic (4224 / 4226 / 4228 / 4329 / 4426 / 4464)

*TOUTE AUTRE FINITION SUR CONSULTATION
/ OTHER SURFACE FINISH CAN BE SUPPLIED SUBJECT TO REQUEST

***Polissage***
*/ Polished*



***Brossage***
*/ Frosted*



***Protections***
*/ Covering*


Bizkaia

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