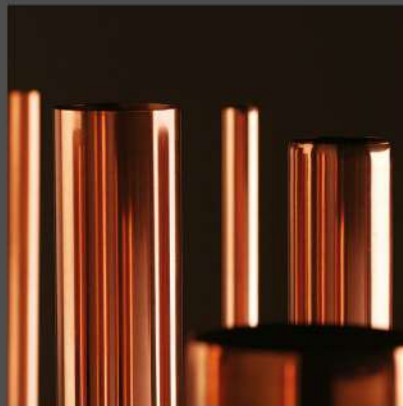




PT. GLOBAL CONTROMATION INDONESIA



PRODUCT CATALOG

ABOUT

GLOBAL CONTROMATION INDONESIA



PT. Global Contromation Indonesia is a subsidiary of Sutindo Group, which established since 2006 and engaged in copper stockiest, brass, aluminum, cast iron, bronze and wires.

For copper strip products, PT. Global Contromation Indonesia is a distributor of Luvata. Its marketing area covers the entire territory of Indonesia. As for the cable, we hold agency for Jembo and Eterna brand cables.

In addition to our head office on Jl. Tanjungsari 44i, Surabaya, we also have a marketing office that located in 2 major cities in Indonesia, namely Jakarta and Surabaya.

We also provide outlets / stores in strategic locations in these 2 major cities, so that make it easy for customers to reach our products and services with the best and fastest response to customers.



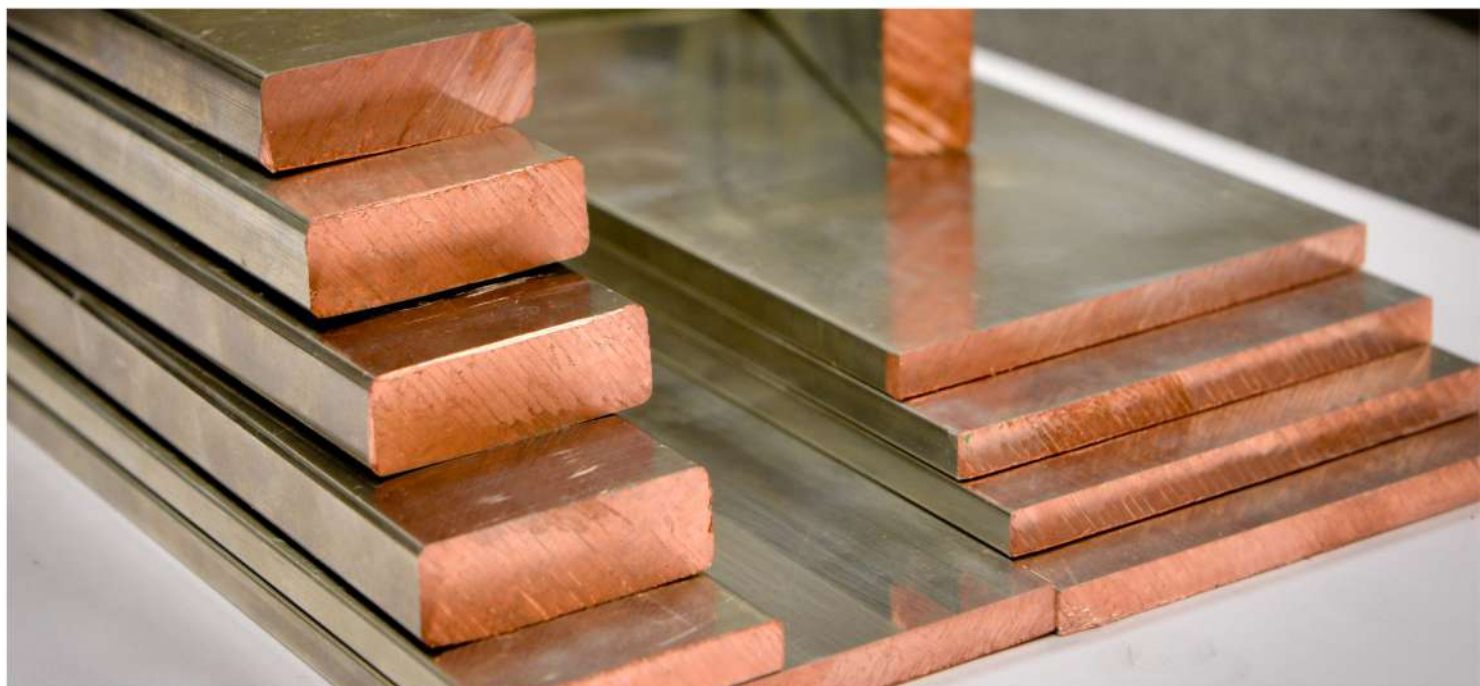
**PROVIDES
PRODUCTS WITH
FINEST QUALITY.**

VISION

Become the no.1 provider of non-ferrous superior products in Indonesia and abroad with prioritizing the welfare of stakeholders.

MISSION

Providing leading non-ferrous superior products through superior and innovative human resources quality products and the best management system for the development of the business world for satisfaction and the welfare of stakeholders.



NF. I. C1100BB
COPPER STREP C1100BB

Shape: Rectangle

Applications: Electrical panels, Transformers, Hangers/JIG for plating, and engine bearings.

Advantages: Excellent electrical conductivity, corrosion resistance, and weather.

Commonly used machines: Cutting, bending, and stamping/punching machines.

Chemical composition: Min 99.90 %

ELECTRICITY RESULTS

| Material Code | Electrical Conductivity % (20°C) |
|----------------|-------------------------------------|
| C1100BB - 0 | Min. 100 |
| C1100BB - 1/4H | Min. 98 |
| C1100BB - 1/2H | Min. 98 |
| C1100BB - H | Min. 97 |



MECHANICAL PROPERTIES

| Material Code | Tensile Test | | | Bending Test | | |
|----------------|----------------|---------------------------------------|---------------|----------------|------------|---------------|
| | Thickness (mm) | Tensile Strength (N/mm ²) | Extension (%) | Thickness (mm) | Bend Angle | Inside Radius |
| C1100BB - 0 | 2 ≤ 30 | Min. 195 | Min. 35 | 2 <_15 | 180° | t x 0,5 |
| C1100BB - 1/4H | 2 ≤ 30 | 215 - 275 | Min. 25 | 2 <_15 | 180° | t x 1 |
| C1100BB - 1/2H | 2 ≤ 30 | 245 - 315 | Min. 15 | 2 <_15 | 90° | t x 1,5 |
| C1100BB - H | 2 ≤ 30 | Min. 275 | - | - | - | - |

NF. II. C1100BD AS COPPER C1100BD

Shape: Round and Rectangular.

Applications: Electrical components, lightning rods, chemical industry, and EDM machine electrodes.

Advantages: Excellent electrical and heat conductivity, malleable, corrosion resistance, and weather.

Commonly used machines: Lathes, CNC, and EDM.

Chemical composition: Min. 99.90%

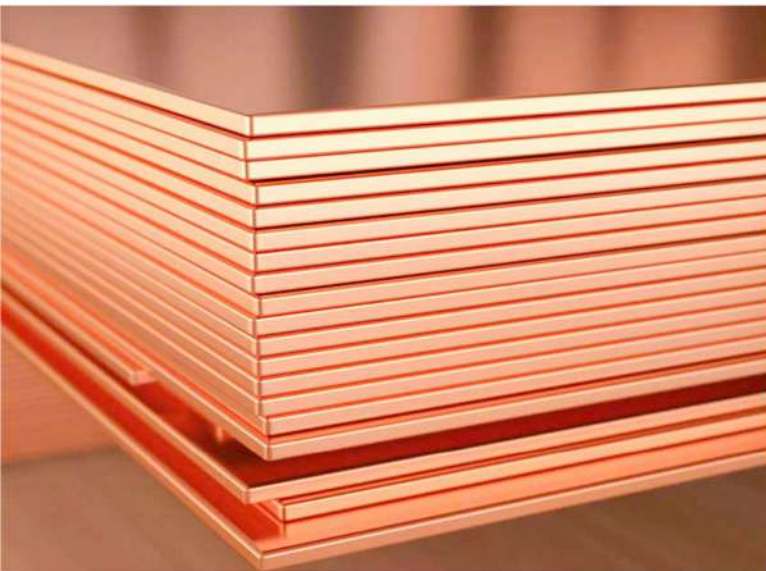
ELECTRICITY RESULTS

| Material Code | Electrical Conductivity % (20°C) |
|----------------|-------------------------------------|
| C1100BD - 0 | Min. 100 |
| C1100BD - 1/2H | Min. 98 |
| C1100BD - H | Min. 97 |

MECHANICAL PROPERTIES

| Material Code | Tensile Test | | |
|----------------|--------------|----------|-----------|
| | Diameter | Strength | Extension |
| C1100BB - 0 | 6 ≤ 75 | Min. 195 | Min. 30 |
| | 6 ≤ 25 | Min. 245 | Min. 15 |
| | 25 < | Min. 225 | Min. 20 |
| C1100BB - 1/2H | 50 | Min. 215 | Min. 25 |
| | 50 < | | |
| | 75 | Min. 275 | - |





NF. III. C1100P COPPER PLATE C1100P

Shape:

- Sheet : 365 mm x 1200 mm
1 m x 1 m, 1 m x 2m

- Coil : 365 mm x coil

Application: Skull cable, electrical terminal, decoration, building roof coatings, radiators, and molding.

Advantages: Excellent electrical conductivity, corrosion and weather resistance.

Commonly used machines: Stamping/punch, EDM, and milling.

Chemical composition: 99.90%

MECHANICAL PROPERTIES

| Material Code | Tensile Test | | | Bending Test | | | Hardness Test | |
|----------------|--------------|------------------|-----------|--------------|-------|---------|---------------|----------|
| | Thickness | Tensile Strength | Extension | Thickness | Angle | Radius | Angle | Radius |
| C1100P - 0 | 0,5 ≤ 30 | Min. 195 | Min. 35 | Max. 2 | 180° | Penuh | - | - |
| C1100P - 1/4H | 0,5 ≤ 30 | 215 - 275 | Min. 25 | Max. 2 | 180° | t x 0,5 | Min. 0,3 | 55 - 100 |
| C1100BB - 1/2H | 0,5 ≤ 30 | 245 - 315 | Min. 15 | Max. 2 | 180° | t x 1 | Min. 0,3 | 75 - 120 |
| | 0,5 ≤ 30 | Min. 275 | - | Max. 2 | 180° | | Min. 0,3 | |



NF. IV. C1220T COPPER PIPE B280

Shape: Round rods and coils

Application: Air conditioner, heating and cooling machine, chemical industry, hot waterways, and gas pipelines.

Advantages: Easy to bloom, bend, shape, corrosion resistance, heat conductor, and good electricity.

Commonly used machines: Bending, flaring, cutting, and welding machines.

Chemical composition: 99.90%

NF. V. GROUNDING ACCESORIES

01. BC WIRE

Shape:

- Round: 4 mm - 120 mm

Application:

- The conductor cable is made of a tangle of copper wire.
- Conductor cable serves to pass the flow of electrical charge from the electric charge rod to the ground.
- The conductor cable is fixed on the wall on the outside of the building.



02. COPPER CLAMP

This copper clamp is used to connect the lightning rod cable with the grounding rod.



03. SKUN CABLE

Skun cable serves to connect the cable to the terminal or panel.

04. GROUNDING COPPER PLATE

Size:

Thickness : 1.8 mm & 2.8 mm

Length 1 meter x Width 1 meter

05. COPPER SPEAR

Size: 3/4 inch & 1 inch

Application: Lightning rod



06. COPPER TIGER NAILS

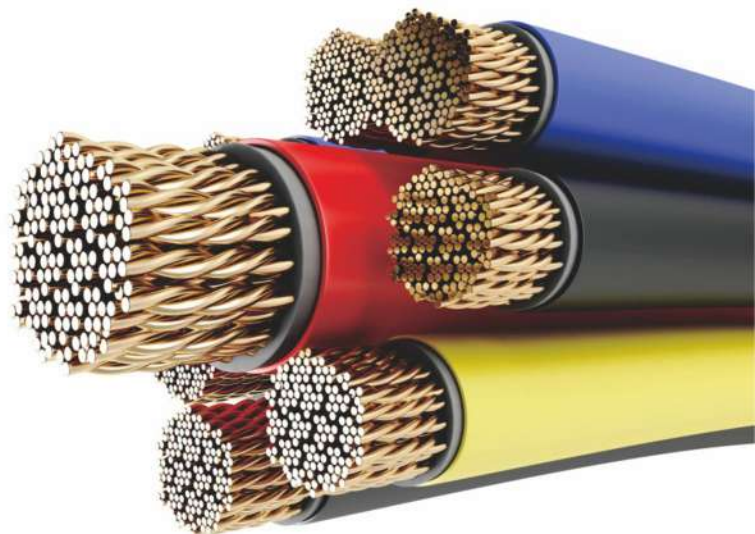
Works: to connect BC cables made of copper alloy.

Berfungsi : untuk menyambungkan kabel BC terbuat dari copper alloy.

NF. VI. CABLE

CABLE TYPE :

1. NYA
2. NYM
3. NYY
4. NYFGBY
5. NYAF
6. NYMHY
7. NYYHY
8. NFA2X (TC)
9. FRC



JEMBO CABLE



ETERNA

NF. VII. FC 25
CAST IRON AXLE FC 25

Shape: Round

Application: Pistons, bearings, manifolds, impellers, V-block, sleeves, pulley, gears, glass molds, and sprockets.

Advantages: Easy to form and vibrate reducer.

Commonly used machines: Lathe, bench lathe, and CNC.

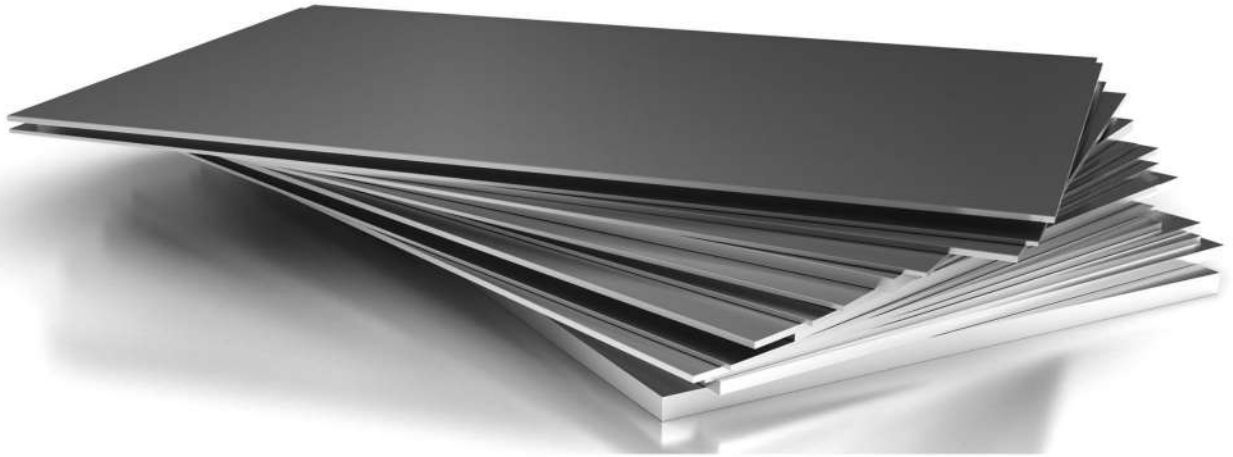
CHEMICAL COMPOSITION (%)

| Al | Cu | Ni | P | Si | S | Mn | C | Cr | Ti | Mo |
|------------|-----------|------------|-----------|-----------|------------|-----------|---|------------|------------|------------|
| Maks. 0,01 | Maks. 0,3 | Maks. 0,08 | Maks. 0,1 | 2,2 - 2,9 | Maks. 0,08 | 0,2 - 0,7 | - | Maks. 0,08 | Maks. 0,05 | Maks. 0,01 |

MECHANICAL PROPERTIES

| Material Code | Tensile Strength (N/mm ²) | Example diameter (mm) | Flexural Performances | | Brinell Hardness (HB) |
|---------------|---------------------------------------|-----------------------|-----------------------|-----------------|-----------------------|
| | | | Max. Load (N) | Deflection (mm) | |
| FC 25 | Min. 275 | 13 | Min. 2160 | Min. 2,0 | Maks. 269 |
| | Min. 255 | 20 | Min. 4900 | Min. 3,0 | Maks. 248 |
| | Min. 216 | 45 | Min. 22560 | Min. 7,0 | Maks. 229 |
| FC 30 | Min. 304 | 20 | Min. 5390 | Min. 3,5 | Maks. 269 |
| | Min. 256 | 45 | Min. 25500 | Min. 7,5 | Maks. 248 |
| FC 35 | Min. 361 | 20 | Min. 5880 | Min. 3,5 | Maks. 285 |
| | Min. 314 | 45 | Min. 28440 | Min. 7,5 | Maks. 269 |





**NF. VIII. A1100P - 5052P - 5083P
6061P - 7075P
ALUMINUM DISH**

Shape:

- Plain: Sheet : 1 m x 2 m, 4' x 8', 5' x 20' (Marine)
Coil : 1 m x coil
- Checkered: Sheet : 1 m x 2 m, 4' x 8'

Application:

- A1100P : Household appliances, electrical appliances, boxes and cans
- A5052P, 5083P, 6061P, 7075P : Tank, Molding Coil
- A5083P H116 : Marine vessel material

Superiority:

- A1100P
Relatively low strength, but very good in the process formation, welding, and corrosion resistance.
- A5052P, 5083P, 6061P, 7075P
Aluminum very high strength, corrosion resistant, and easy in the welding process.

The machine used:

Cutting, milling, punch/stamping, drill and bending machines.



NF. IX. A6061 - 6063A6061 - 6063
AS ALUMINIUM A6061BE, 6063BE

Shape: Round

Application:

- A6061BE : Rivet material, car components.
- A6063BE : Heating machine components.

Advantages:

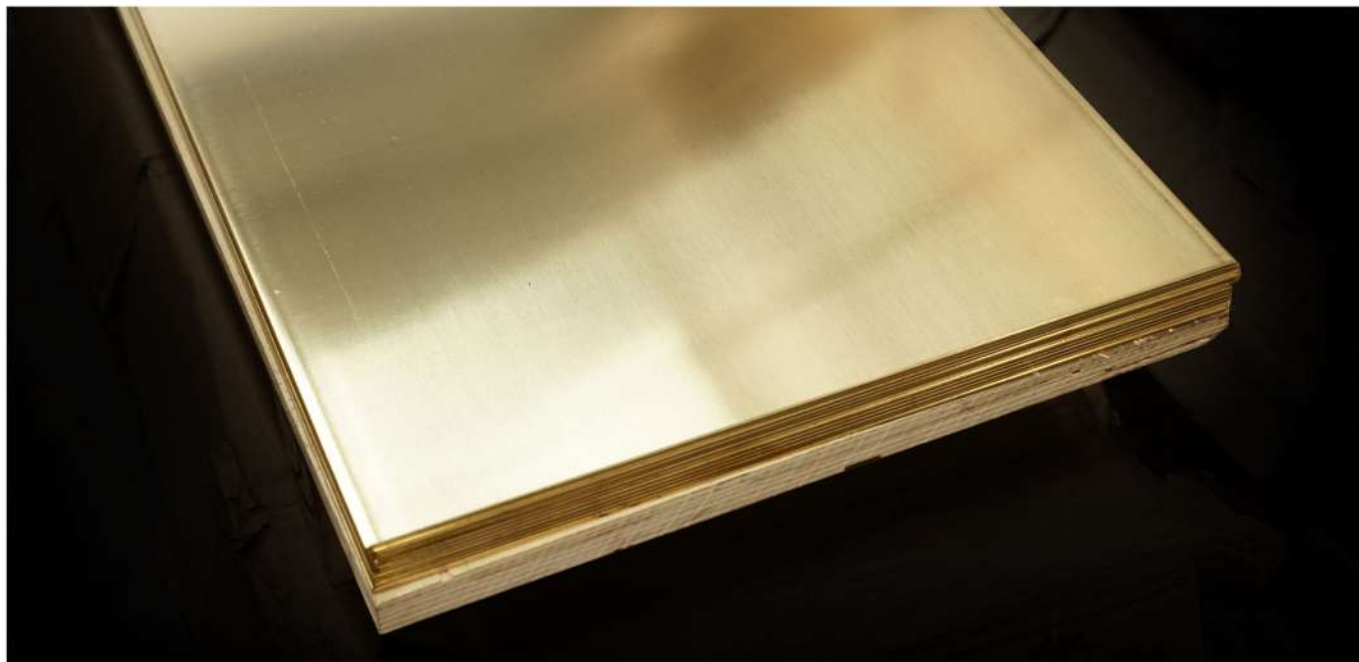
- A6061BE : Corrosion resistant for types of heating device components.
- A6063BE : Softer than type 6061, but highly corrosion resistant and superior in surface processes.

Commonly used machines: Lathes, turrets, and CNC.

CHEMICAL COMPOSITION (%)

| Material Code | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Etc | | Al |
|---------------|-----------|------------|------------|------------|------------|-------------|------------|------------|--------------|------------|------|
| | | | | | | | | | Respectively | Total | |
| A6061BE | 0,4 - 0,8 | Maks. 0,7 | 0,15 - 0,4 | Maks. 0,15 | 0,8 - 1,2 | 0,04 - 0,35 | Maks. 0,25 | Maks. 0,15 | Maks. 0,05 | Maks. 0,15 | Sisa |
| A6063BE | 0,2 - 0,6 | Maks. 0,35 | Maks. 0,1 | Maks. 0,1 | 0,45 - 0,9 | Maks. 0,1 | Maks. 0,1 | Maks. 0,1 | Maks. 0,05 | Maks. 0,15 | Sisa |





NF. X. C2680P BRASS PLATE C2680P

Shape:

- Sheet: 365 mm x 1200 mm, 600 mm x 1200mm, 1 m x 1 m, 1 m x 2 m
- Coil: 365 mm x coil

Application: Skun cable, outlet terminal, electronic components - automotive - furniture, radiators, buckles, buttons, watches, decorations, light fittings, zippers and coins.

Advantages: Electrical conductor and corrosion resistant, easy to work and easy to plating.

Commonly used machines: Manual and automatic stamping/punching machines, milling.

CHEMICAL COMPOSITION (%)

| Cu | Pb | Fe | Zn | Sn | Al | Mn | Ni | P |
|---------|----------|----------|------|----|----|----|----|---|
| 64 - 68 | 0,05 max | 0,05 max | Sisa | - | - | - | - | - |

MECHANICAL PROPERTIES

| Material Code | Tensile Test | | | Bending Test | | | Hardness Test | |
|---------------|----------------|---------------------------------------|--------------------|------------------|--------------|----------------|----------------|--------------|
| | Thickness (mm) | Tensile Strength (N/mm ²) | Extension (%) | Thickness (mm) | Angle | Inside Radius | Thickness (mm) | Vickers (HV) |
| C2680P - 0 | 0,3≤1 1≤30 | Min. 275 Min. 275 | Min. 40 Min. 50 | Max. 2 Max. 2 | 180° 180° | Penuh Penuh | - - | - - |
| C2680P - 1/4H | 0,3≤30 | 325 - 410 | Min. 35 | Max. 2 | 180° | t x 0,5 | Min. 0,3 | 75 - 125 |
| C2680P - 1/2H | 0,3≤20 | 355 - 410 | Min. 28 | Max. 2 | 180° | t x 1 | Min. 0,3 | 85 - 145 |
| C2680P - H | 0,3≤10 | 410 - 540 | - | Max. 2 | 180° | t x 1,5 | Min. 0,3 | 105 - 175 |
| C2680P - EH | 0,3≤10 | Min. 520 | - | Max. 2 | 180° | t x 1,5 | Min. 0,3 | Min. 145 |

NF. XI. A3604BD
AS BRASS C3604BD

Shape: Round, rectangular, and hexagon.

Application: Nuts, gears, nipple, valve, bushing machine, pen, antenna, electrical terminal, plug pins, electrical/electronic components, automotive components, tool components medical, furniture components, and watch components.

Advantages: Easy to speed and form, corrosion resistance, good electrical conductivity.

Commonly used machines: Lathe, turret, auto lathe, CNC.

CHEMICAL COMPOSITION (%)

| Material Code | Cu | Pb | Fe + Sn | Zn | Al | Mn | Ni | P |
|---------------|---------|-----------|-----------|------|----|----|----|---|
| C3604BD | 57 - 61 | 1,8 - 3,7 | Maks. 0,5 | Sisa | - | - | - | - |
| C3605BD | 56 - 60 | 3,4 - 4,5 | Maks. 1 | Sisa | - | - | - | - |

MECHANICAL PROPERTIES

| Material Code | Diameter (mm) | Tensile Test | | Hardness Test | |
|---------------|---------------|---------------------------------------|---------------|---------------|------------|
| | | Tensile Strength (N/mm ²) | Extension (%) | Vickers HV | Brinell HB |
| C3604BD | 6 ≤ 75 | Min. 335 | - | Min. 80 | - |
| C3605BD | 9 ≤ 100 | Min. 335 | - | Min. 80 | - |



NF. XII. BRASS PIPE

Shape: Round and Rectangular

Application: Heating machine, sanitary pipe, machine components, antenna pipe, curtain hanger, decorations, beds, light pipes, and air rifle ducts.

Superiority: Easy to bloom and bend, easy to shape and work with, good in plating.

Commonly used machines: Bending, cutting, rolling and flaring machines.



CHEMICAL COMPOSITION (%)

| Cu | Pb | Fe | Zn | Sn | Al | Mn | Ni | P |
|---------|------------|------------|------|----|----|----|----|---|
| 63 - 67 | Maks. 0,05 | Maks. 0,05 | Sisa | - | - | - | - | - |

MECHANICAL PROPERTIES

| Material Code | Tensile Test | | | | Hardness Test | | | |
|---------------|-----------------------|----------------|---------------------------------------|---------------|----------------|----------|-------|----------|
| | Outside Diameter (mm) | Thickness (mm) | Tensile Strength (N/mm ²) | Extension (%) | Thickness (mm) | Rockwell | | |
| | | | | | | HR30T | HR15T | HRF |
| C2700T - 0 | 4 ≤ 250 | 0,3 ≤ 15 | Min. 295 | Min. 40 | 0,8 | Maks. 40 | - | - |
| C2700T - 0L | 4 ≤ 250 | 0,3 ≤ 15 | Min. 295 | Min. 40 | 0,8 | - | - | Maks. 80 |
| C2700T - 1/2H | 4 ≤ 100 | 0,3 ≤ 6 | Min. 375 | Min. 20 | ≤ 0,8 | Maks. 60 | - | - |
| | 100 ≤ 250 | 2 ≤ 10 | Min. 355 | | 0,8 < | - | - | Maks. 90 |
| C2700T - H | 4 ≤ 100 | 0,3 ≤ 6 | Min. 450 | - | - | Min. 53 | - | - |
| | 100 ≤ 250 | 2 ≤ 10 | Min. 390 | | 0,5 ≤ 6 | Min. 70 | - | - |

NF. XIII. LG2 / BC6C
AS & HOLLOW BRONZE LG2 / BC6C

Shape: Round

Applications: Bushing machine, sanitary, nipple, hydraulic components, gears, valves, rings, sleeves, and water taps sleeves.

Advantages: Malleable, corrosion and abrasion resistant, high flexibility.

Commonly used machines: Lathe and CNC



CHEMICAL COMPOSITION (%)

| Cu | Sn | Zn | Pb | Ni | Fe | P | Sb | Al | Si |
|---------|-------|-------|-------|-----------|-----------|-----------|-----------|------------|------------|
| 83 - 87 | 4 - 6 | 4 - 6 | 4 - 6 | Maks. 1,0 | Maks. 0,3 | Maks. 0,5 | Maks. 0,2 | Maks. 0,01 | Maks. 0,01 |

MECHANICAL PROPERTIES

| Material Code | Tensile Strength (N/mm ²) | Extension (%) |
|---------------|---------------------------------------|---------------|
| BC6C | Min. 245 | Min. 15 |

NF. XIV. HYDRAULIC PIPE

Available sizes:
 Diameter 6 mm s/d 42 mm

- Hydraulic Pipe Applications:
1. Shipping - Automotive
 2. Hydrolytic Machine, Pneumatic
 3. The pipe drains the oil
 4. Oil and gas





NF. XV. LEAD

High quality lead that has high protection against radiation and excellent soundproofing power.



NF. XVI. SILVER WELDING WIRE

Spec : AWS A5.8 Bcup - 2
Silver brazing rod

Available dimensions:
1.45 mm x 3.11 mm x 450 mm



NF. XVII. BRASS WELDING WIRE

Spec : Hs221
EIKO Brass Welding Rod

Available sizes:
2 mm, 3 mm, 4 mm, 5 mm,
Length 1000 mm

Good wear resistance
Excellent corrosion
High intensity
Surface clean
Good smooth



www.globalcontromation.com