CUPHIN

FOR DRINKING WATER APPLICATIONS

THE **NEW** ALLOY FOR ACCESSORIES AND FITTINGS

Our new Cu-Si-alloy for drinking water applications represents:

- RELIABILITY
- HYGIENE
- HEALTHINESS AND WELL-BEING
- ECOLOGY

The choice of the most suitable alloy is one of the most important aspects for drinking water applications.

The chosen alloys and products have to meet the technical and mechanical requirements as well as to be hygienically completely harmless.

The alloys and products applied are consequently tested regarding the migration of chemical components and the growth of microorganisms.

Due to the negative impact on our health the maximum value for lead in drinking water will be reduced to 10 µg/l starting as of December 1st, 2013.

CUPHIN is specially designed for the requirements of drinking water applications. This Cu-Si-alloy considers the legal requirements of the future as well as the important aspects regarding reliability, hygiene, healthiness and well-being.

Chemical Composition:
(reference values in % by weight)

Cu	76 %
Si	3 %
P	0,05 %
Zn	rem.

Physical Properties:
(reference values)

Density	8,3 g/cm³
Electr. Conductivity	4,5 MS/m
Therm. Conductivity	ca. 35 W/mK
Mod. of Elast.	100 GPa

RELIABILITY

Mechanical Properties:

One of CUPHIN's most remarkable features are the extraordinary mechanical properties, which could not have been reached with the normally used standard alloys for accessories and fittings. Its high tensile strength combined with high elongation was until now only known from some alloyed steel grades.

Rm tensile strength	700 MPa
Rp 0.2 proof strength	480 MPa
A5 elongation	20 %
HB hardness	180 Brinell

(reference values for rods of approx. 20mm diameter / .787" diameter)

Corrosion Resistance:

CUPHIN is stress corrosion cracking resistant (SCCR) and shows at the same time resistance against dezincification. Nearly no other material in drinking water applications offers these properties in combination.

CUPHIN meets the DIN 50916 – T1 for stress corrosion cracking (SCCR) with excellent results.

Due to its mechanical and corrosion resistance properties this Cu-Si-alloy is by far the best alternative for drinking water applications.

DZR OK SCCR OK

HYGIENE

Independent scientific research shows without any doubt that the surfaces of copper and copper alloys efficiently prevent the multiplication of bacteria and other microorganisms.*

CUPHIN with its high copper content of 76 % clearly contributes to the hygiene of drinking water installations.

HEALTHINESS AND WELL-BEING

Drinking water is by far our most important source of life. It has to be free from harmful microorganisms, absolutely clean and ready to drink.

CUPHIN is free from lead and other questionable elements and therefore ideally suited for drinking water applications.

Our new alloy gives the consumer a comfortable and safe feeling whilst preparing food.

CUPHIN fulfils already today the future legal requirements.

Pb free

* additional information: www.copperinfo.co.uk

CUPHIN

ECOLOGY

As a typical copper alloy CUPHIN prevents the shortage of our tight natural resources.

It is a long-lasting material and will not wear out. It is completely reusable due to the already well-operating recycling system.

Recycling helps to protect our environment because the additionally required energy for ore mining, refining and transportation can be omitted. Furthermore the energy consumption during the melting process of used copper and copper alloys is only a fraction compared to the above mentioned process.

CUPHIN has one of the best energy balances of all industrial materials regarding the overall manufacturing process.

Support us!

Take your part in the positive energy balance of CUPHIN. Please separate this alloy from all other materials during every step of the recycling process.

For a healthy environment!

BRUSE
www.bruse.de

CUPHIN
A GOOD FEELING

For detailed information: www.cuphin.de