

## **FEATURES**

The METAL-BLACK, composed of two products (A and B) is a cold chemical burner, active on ferrous metals, with the characteristic of performing the browning action in two distinct and distinct following times, allowing to achieve several advantages:

- Employing the only METAL BLACK A is possible to obtain a <u>chemical copper plat-</u> ing, extremely compact and adherent to the substrate, with a thickness of about 0.15 microns. This property can be used to <u>en-</u> <u>noble ferrous materials.</u>
- By using the **METAL-BLACK B**, after the **product A** the burnishing is obtained.
- By using only METAL-BLACK B on copper and their alloys it is possible to give <u>aging</u> <u>effects to the manufactured articles</u>.

It is ideal for the treatment of cutting tools, reamers, files, drill bits, screws and bolts, gears and metal tools.

## HOW TO USE

METAL-BLACK products are ready to use.

**1-CLEANING AND DEGREASING.** Thoroughly clean and degrease the piece using a solvent bath (KEMPERSOLV Line) or an alkaline bath (DERKEMP MAT line). In this second case it is necessary to follow a good rinse. The type of bathroom depends on the nature of the material.

<u>2- DEOXIDATION (if necessary).</u> Use a pickling bath of METALDEC LIQUID or DESCAL LIGHT (suitably diluted), with a residence time of 5-10 minutes. Follow a generous rinse.

<u>3- COOPERING.</u> Completely immerse the ferrous parts in product **A** for no more than 5 to 10 secondsRinse and dry.

<u>**4- BRUNISHING**</u>. The coppered piece in step 3 is completely dipped in the product **B** without rinsing for about 30 seconds.

5- FIXING. The appearance of copper plating can be maintained indefinitely by treating the dry piece with PRONEX SPRAY DRY. To fix

## METAL-BLACK A METAL-BLACK B

Two-component burnishing for metals.

the burnishing, treat the piece with an oil protective agent (PRONEX OIL).

**WARNINGS:** use plastic tubs. Separate the sludge which is deposited on the bottom of the burnishing tank daily.

When the copper-browning time increases, the baths are running out: in this case, top up or replace.



## PACKAGING

K0044210 METAL-BLACK A : C1\*-C5 K0044220 METAL-BLACK B : C1\*-C5