



EUROPEAN UNION



GOVERNMENT OF ROMANIA



SERBIAN GOVERNMENT



Structural Funds  
2007-2013



ECOSOLDER

## Romania - Republic of Serbia IPA Cross-border Cooperation Programme

Promoting new ecologic filler alloys  
for soldering, based on the non-ferrous ore of  
the Romanian-Serbian cross-border area

# ECOSOLDER



**Romania-Serbia**

Common borders. Common solutions.



**MARTENZIT**



*alati i pribor za istražna geološka, hidrogeološka, eksploataciona i druga bušenja  
tools and equipments for geological prospecting, hydro geological, exploitation and other drilling*

**BRAZING, JOINT STEEL-HARD METAL**

**Miroslav Đorđević**

**Martenzit doo Bor**

**SERBIA**

<http://www.martenzit.rs>



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*alati i pribor za istražna geološka, hidrogeološka, eksploataciona i druga bušenja*  
*tools and equipments for geological prospecting, hydro geological, exploitation and other drilling*



- Started in 2003. with production of bits and accessories for geological exploration
- Expanded on national and international market
- Cooperation with national institutions  
e.g. Mining and Metallurgy Institute Bor



# MARTENZIT



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*tools and equipments for geological prospecting, hydro geological, exploitation and other drilling*



Brazing is a metal joining process where a filler metal is heated and distributed between metal parts. There are various types of brazing according to filler materials (copper alloys, aluminum-silicon, silver alloys etc.).

Silver brazing use a silver alloy based filler with addition of copper, zinc and cadmium.



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In recent years we are trying to follow the global trends in the field of ecology, so in cooperation with MMI Bor the silver filler alloys with cadmium are substituted with ecological ones (CuZnNi and later brass solder CuZn38Mn1 with working temperature 900°C ).

It was not an easy job, it demanded numerous investigations.



*ALATI NA BAZI TVRDIH  
LEGURA*

*NON DIAMOND TOOLS*



*KRUNE ZS BUŠENJEM  
SA JEZGROM*

*TUNGSTEN CARBIDE  
INSERTS CORIN BIT*



Ove krune se koriste za bušenje  
relativno mekih formacija.  
Na raspolaganju su u svim standardima;  
(metricki, DCDMA)

These bits are for drilling relatively  
soft formations.  
They are available in all standards  
( DCDMA, metic )

Some of the products  
from Martenzit doo Bor

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## KRUNE



MARTENZIT proizvodi sve tipove i standarde kruna za bušenje:

- Dijamantske krune:

- za bušenje sa jezgrom
- za bušenje bez jezgra

-Kruna sa ugrađenim tvrdin metalom(vidija):

- kruna za bušenje sa jezgrom
- kruna za bušenje bez jezgra
- za rotaciono bušenje
- za udarno bušenje



## BITS

MARTENZIT produced different qualities and standards drilling bits

- Diamond bits:

- coring bits
- non coring bits

-Tungsten carbide bits:

- coring bits
- non coring bits
- for rotation drilling
- for percussion drilling



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## DIJAMANTSKI ALATI

### DIJAMANTSKE KRUNE

Dva glavna tipa dijamantskih kruna su na raspolaganju:

- kruna sa površinski ugrađenim dijamantima (zrnaste)
- kruna sa dijamantskom prašinom (impregnirane)



## DIAMOND TOOLS

### DIAMOND BITS

Two main types of diamond bits are available:

- surface-set bits, usually used in soft to hard formation
- impregnated diamond bits, essential for difficult coring operations in very hard fractured rock



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# Thank you for your attention!



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