

CASE STUDY

↳ Assarel Copper Mine (BG)



↳ Steel specialists
Abrasive, one of Europe's largest specialist steel processors and stockholders of abrasion resistant and high yield steel, recently completed a rigorous test period to prove the wear resistant quality of their CREUSABRO anti abrasion steels.

LOADS MORE LIFE WITH CREUSABRO ANTI ABRASION STEELS

"Everyone wants proof – so here it is. In rigorous on site tests, the CREUSABRO lined bucket allowed an amazing 46 % more working time compared with other anti abrasion steels"

↳ Adrian Hance,
Abrasive UK Divisional Director

The on-site, rigorous testing schedule completed in cooperation with IMS Group, Arcelor Industeel, the production mil and machine design engineers was carried out over a 12 month period at Assarel, a Bulgarian copper mine. The trial was completed at one of the most abrasive mining sites found in central Europe that extracts over 10.5 million tones of ore per year, with particle size up to 30 mm, angular and containing sulphides, borite, malachite, azurite and cuprite.

The trial buckets were new, manufactured in the same workshop, the first bucket beingt equipped with standard water quenched 400 and 500 HB anti abrasion steels and the second bucket with **CREUSABRO 4800** and **CREUSABRO 8000** wear resistant steel.

Operating for 23-24 hours a day, 7 days a week, the trial periods ran from April to October for bucket 1 and October to May for bucket 2 with limited blasting times putting high production demands on the machines.

Bucket 1 was stopped for maintenance after 2540 working hours, whilst the **CREUSABRO** lined bucket continued for a further 1160 hours, eventually being stopped after 3700 hours – an amazing 46 % more working time, showing **CREUSABRO** steels provide significant wear life improvement in the harshes of environments.

↳ **Key Technical Data, CREUSABRO 4800**

Wear resistant steel that combines resistance to abrasion together with a high level of toughness.

Applications	Cement plants, quarry, mining and earthy moving equipment, block moulds, screen, steel production and recycling plants and vehicles.							
Hardness	340 HB-400 HB as supplied							
Composition	C	S	P	Mn	Ni	Cr	Mo	Ti
	≤ 0.20	≤ 0.05	≤ 0.018	≤ 1.60	≤ 0.20	≤ 1.90	≤ 0.40	≤ 0.20
Thickness	3-40mm							

contact Abrasive UK for full technical data sheet.

↳ **Benefits, CREUSABRO 4800**

- Excellent wear resistant properties
- Optimum combinatio of wear resistance to abrasion together with a high level of toughness
- Ability to work harden offers an increased wearlife of up to 50 % versus conventional 400 HB materials
- Suitable for applications in steel component production for recycling plants and vehicles

↳ **Processing Facilities**

- CAD/CAM Profiling
- Perforating
- Plasma Profiling
- Forming
- Laser Profiling
- Drilling and Countersinking
- Oxy-gas Profiling
- Bevelling
- DXF Compatible
- Welded Fabrications

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