

INDUSTRY
SOLUTIONS.

Mining
Solutions.

CHT

SMART CHEMISTRY
WITH CHARACTER.

MINING SOLUTIONS

HANSA OPTIMIZE M

INNOVATIVE WETTING AGENT FOR
MINING PROCESSES

MEETING THE CHALLENGES OF MODERN MINING

The processing of highly valuable mineral resources is marked by an increasing demand of a growing number of future-oriented industries, like electronics, automotive or solar components. Besides the prevailing economical crisis and the huge demand for resources, this is impacting heavily on gold prices and other semi precious metals.

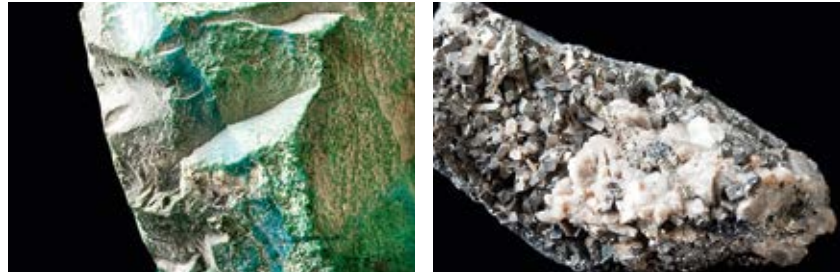
Further more ecological requirements and process optimisation in terms of consumption of resources, water and energy are constantly increasing.

With its comprehensive know-how of "Smart Chemistry with Character" the CHT Group aims at contributing innovative solutions as well as technologies for cost-effective processes and ultimately a competitive extraction of those precious metals like gold, platinum and copper.

EFFICIENT MINING PROCESSES WITH THE HANSA OPTIMIZE M SERIES

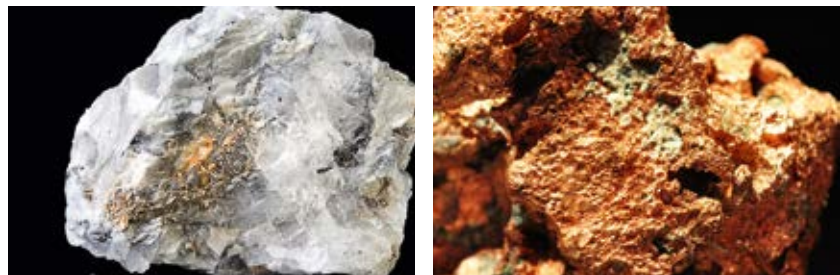
We developed with HANSA OPTIMIZE M a non-foaming wetting agent, that perfectly meets these requirements. Besides an increasing yielding, HANSA OPTIMIZE M allows the reduction of toxic and harmful chemicals like cyanides. It creates added value in two ways: as part of heap leaching and flotation processes.

OPTIMISE YOUR FLOTATION AND HEAP LEACHING



INCREASES DISSOLUTION RATES OF VARIOUS METALS

EXTREMELY WELL SUITABLE FOR THE EXTRACTION OF GOLD, COPPER AND PLATINUM



OPTIMISED REDUCING THE SURFACE TENSION OF LEACHING LIQUORS

IMPROVES THE WETTING OF ORES

ADVANCE OF FLOTATION PROCESSES

With HANSA OPTIMIZE M addition in the process, surface tension of the mineral/ ore is drastically reduced and optimally prepared for the absorption of the co-collector and other reagents.

- ▶ Increasing efficiency in adsorption
- ▶ Better separation
- ▶ Positive stabilisation effect
- ▶ Improvement of recovery of target mineral

ADVANCE OF USING HANSA OPTIMIZE M IN LEACHING PROCESS

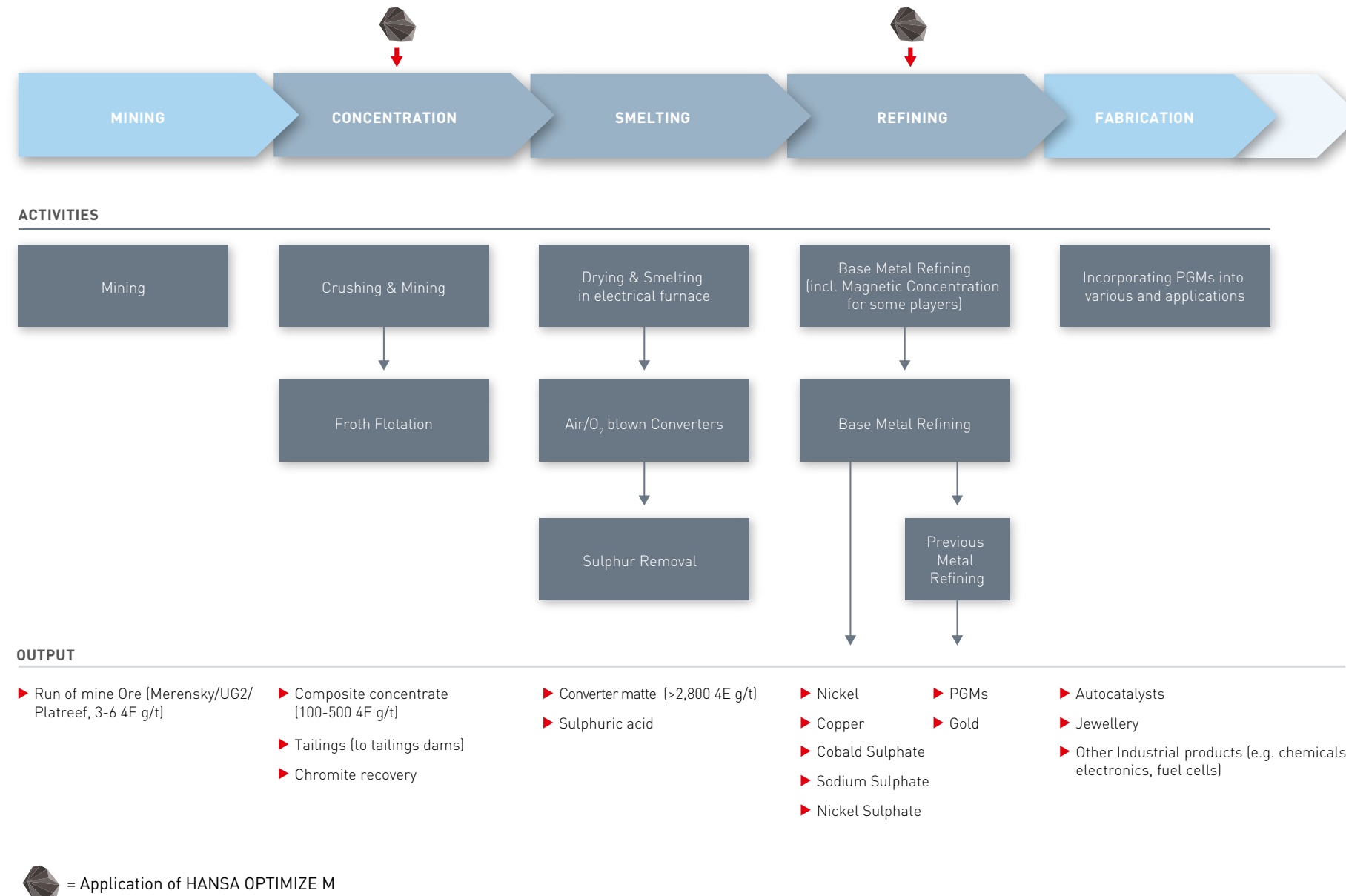
HEAP LEACHING

- ▶ Reduction of process time
- ▶ Reduction of surface tension
- ▶ Excellent wetting of ores and minerals
- ▶ No foaming during and after leaching
- ▶ No negative impact on process
- ▶ Higher yields of extraction

IMMERSION

- ▶ Same advantages of heap leaching
- ▶ >20% reduction of NaCN consumption

POWERFUL LINK IN THE PGM'S VALUE CHAIN



PROPERTIES

- ▶ Distinctive surface activity
- ▶ Excellent wetting of ores and minerals
- ▶ Soluble in water
- ▶ Stable at a pH range of 2 – 12
- ▶ Increasing dissolution rates of various metals

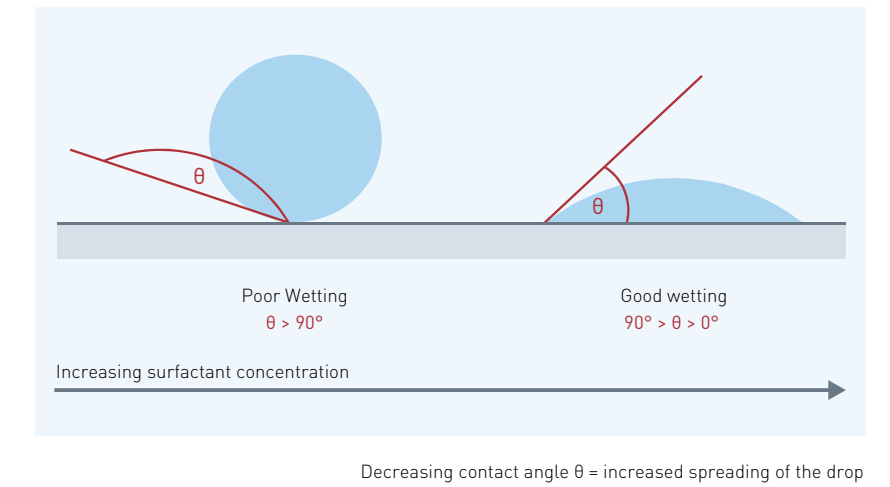
BENEFITS

- ▶ Reduces the surface tension to less than 35 dyn/cm
- ▶ Increases hydrophilicity of the particles surface
- ▶ Increases contact of extraction liquors with the ore
- ▶ Creates a stable solution at pH above 10.5
- ▶ No foam formation during or after the process
- ▶ No interference with the following processes

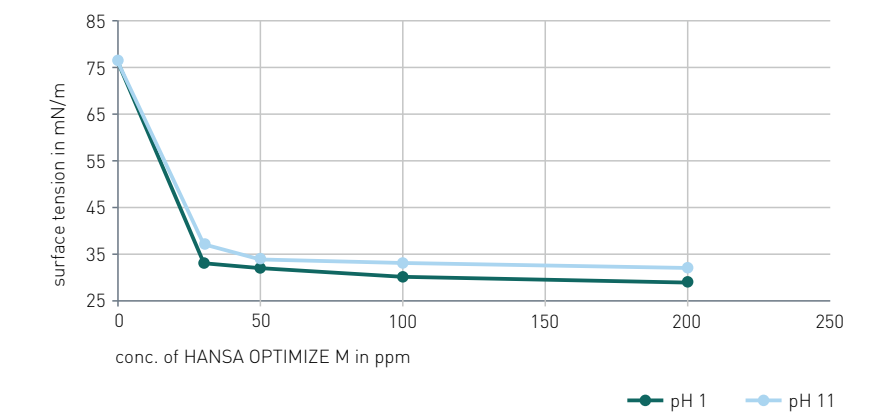
FREE OF FOAM EVEN AT ACID PH VALUES

NON-FOAMING PERFORMANCE

WETTING OF SOLID SURFACES



REDUCED SURFACE TENSION



HANSA OPTIMIZE M in ppm	pH 1	pH 11
0	76	76
30	33	37
50	32	34
100	30	33
200	29	32

surface tension in mN/m

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