emew
clean technologies

Copper recovery from e-waste

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Opportunities

Copper content of the processed e-waste is typically 25–80% by weight, however precious metals typically represent 70–90% of the overall metal value.

Efficient removal of copper is critical to realize the full value of precious metals locked in the electronic waste.

The conventional method involves a capital and energy intensive pyro step and requires additional copper scrap to produce anodes for electrorefining. The electrorefining process produces copper cathode and releases precious metals as anode slime in three weeks or longer.

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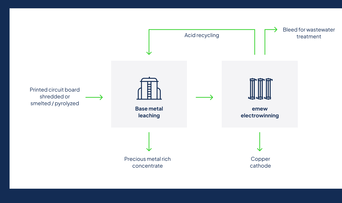
Solution: emew System for e-waste

The process offered by emew can efficiently recover base metals and release precious metal concentrate from e-waste.

Shredded or smelted Printed Circuit Boards are leached to release precious metals rich concentrate immediately (within 24 hours) and produce copper rich leachate. The emew cells produce high-grade copper cathode from this leachate.



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Benefits of the emew System

Technology offered by emew offers a closed-loop, sustainable solution for copper removal and immediate release of precious metals. The emew System is scale agnostic enabling localized and efficient recycling with simplified permitting requirements.

	Pyrometallurgy + Electrorefining (third party)	Digestion + Electrowinning (emew)
Rapid realization of precious metals	No	Yes
Accurate sampling and assay	No	Yes
High-purity copper recovered	Yes	Yes
Low working capital	No	Yes
Tin value realization	No	Yes
High shipping time and cost	Yes	No
Long processing time	Yes	No
High carbon footprint	Yes	No
Difficult process control	Yes	No
Slag by-products	Yes	No
Hazardous emissions	Yes	No

Some of our valued customers

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