Conax TECHNOLOGIES
Ideas. Solutions. Success.

Platinum Reclaim Program

Conax Technologies manufacturers, and offers reclaim credit for, platinum/rhodium precious metals thermocouples. These are commonly called Type-S, Type-R or Type-B thermocouples. Conax will accept used thermocouples with the completion of an HMD (Hazardous Material Declaration) form. As an alternative, companies may remove the wire from the used thermocouple, sending in only the wire.

To send either thermocouples or precious metals wire to Conax for reclaim, Conax must first issue an RMA (Return Materials Authorization) number to you. After the RMA number is issued, you will receive the HMD form containing the RMA number. The HMD form should be completed and emailed back to the person who issued the RMA number prior to shipping anything back to Conax. A copy of the HMD form must also be attached to the outside of the box to be received in at Conax. Also include a copy of the HMD form inside the box.

When we receive your shipment, we will disassemble, remove and weigh the wire. We will then calculate the value based on the current pricing of platinum and rhodium. This value is given to the returning company in one of two ways…

1. Conax may issue a credit to use against current or future invoices; or
2. For profile thermocouples used in the semiconductor industry, Conax can work with your company to conduct a "swap" program, where used thermocouples are returned, one-for-one, for new replacement units being shipped out. This allows for a lower "swap price" to be invoiced per thermocouple rather than in the credit scenario outlined above. In either case, the reclaim value is the same

If you have any questions or would like to send in some precious metals thermocouples in for reclaim, please contact the sales department at Conax today!

Additional Information for Return of Epitaxial Thermocouples

These work instructions describe the preparation, decontamination and packaging of used epitaxial
thermocouples for shipping to Conax Technologies for platinum reclaim.

- Used thermocouples may have very small amount of residue from process gasses
- Used thermocouples may include broken or devitrified quartz sheaths.

1. **SAFETY** – Wear appropriate personal protective gear (PPG) when following these work instructions
    a. Safety glasses with side shields
    b. Closed-toed shoes
    c. Vinyl or nitrile gloves
    d. Cut-resistant gloves

2. **EQUIPMENT AND MATERIALS**
    a. Wet sink with DI or city water that drains to acid waste
    b. Lint-free wipes
    c. Plastic sheet
    d. Table
    e. Cardboard shipping box
    f. Tape
    g. HMD form
    h. Used epitaxial thermocouples to be returned
3. **INSTRUCTIONS FOR DECONTAMINATION**
    a. Submerge the used thermocouples into a DI or city water bath
    b. Let the used parts soak for 10 minutes (this stabilizes and dilutes any residue remaining on the quartz sheath)
    c. Remove from the water bath
    d. Hold the thermocouple from the Common End and carefully wipe the length of the thermocouple with lint free wipe. *NOTE: In the case that the thermocouple sheath is broken or badly devitrified, use cut-resistant gloves to protect against your hand or fingers coming in contact with broken quartz*
    e. Lay the rinsed and wiped thermocouples onto the lint free wipes and allow to air dry for 8 hours. Alternatively they can be blown dry with an N2 gun or shop air
    f. Drain the water bath to the acid waste drain for remediation
    g. Discard the used lint-free wipes into an acid waste container
4. **INSTRUCTIONS FOR PACKAGING**
    a. Lay a 50” x 50” sheet of plastic on a table
    b. Place < 20 used thermocouples on the plastic sheet
    c. Do a “Burrito Roll” of plastic sheet around these parts and secure the bundle closed with tape. It does not need to be sealed to air, only tape it to keep it together
    d. Place one or more bundles into an appropriately sized Cardboard shipping box
    e. Complete the HMD form and attach a copy to the exterior of the box with an additional copy inside the box with the thermocouples
    f. Place a shipping label on the box **with the RMA number** obtained from Conax Technologies
    g. Ship to Conax

Rev A