

1. Frequently Asked Questions for ECO-mini “dry”

Q1. What kind of polishing media can be used in the *ECO-mini “dry”*?

A1. After extensive laboratory tests the best results were obtained with a natural reclaimed material, walnut-shell granule. We recommend you only use the following Otec premium grade, pre-treated walnut-shell granules.

Use H1/100 grade (coarse):

- to remove heavily scratched pieces (1-3 hours).
- after wet grinding (1-3 hours) see ***ECO-mini “wet”***.
- after using emery paper size 600 grade (up to 15 hours).

Use H1/400 grade (medium):

- for filigree jewelry for chain necklaces or bracelets where a coarse grade (H1/100) might get stuck due to its size

Use H1/500 grade (fine):

- for the final mirror shine (max. time 30 minutes)

Q2. Will polishing with the *ECO-mini “dry”* damage jewelry stones, amber, plastic or pearls?

A2. No, dry polishing with walnut granule will not cause damage.

Q3. How long can the granules be used?

A3.

- Coarse walnut-shell granule H1/100: up to 100 hours
- Medium sized walnut-shell granule H1/400: 50-60 hours
- Fine small walnut-shell granules H1/500: up to 30 hours
- Plastic polishing bodies such as ZSFP 2 or LFP 3 lasts “forever” because the polishing action, is generated by the polishing paste.

Tip - The polishing granule can dry out and will not polish as well, if left unused and exposed to the air. To restore, add a small quantity of polishing paste P1 (half a teaspoon).

Q4. How much and how often has polishing paste to be added?

A4. New Otec walnut shell granule is already pre treated with polishing paste. After a several processes you will notice the polishing is not as effective. This is now time to add half a teaspoon of P1 polishing paste. This must be added to the granule so it can mix thoroughly before adding the jewelry pieces.

- H1/100 – H1/400: Add approx. every 4 working hours when processing gold, platinum, stainless steel and titanium alloys.
- Apply every 8 working hours when processing silver alloys.
- ZS FP 2 and H1/500: Add approx. every 8 working hours with all alloys. With new granules add about 2 teaspoons of additional paste.

Q5. What quantity of walnut granules and jewelry pieces can I put into the *ECO-mini “dry”*?

A5. You can put approximately 1.5 liters of granules into the *ECO-mini “dry”*.

The amount of jewelry pieces depends on their design, volume and on the weight per piece. It amounts to a maximum volume of 100 – 200 ml with a maximum weight of about 100 g.

When processing more than one piece, the individual weight of each jewelry piece should not exceed 6 grams, to avoid damaging each other and leaving impact marks.

As a rule of thumb take a ratio of 1:7 (jewelry pieces : walnut granule)

Tip – Be cautious, always start with a small number of pieces. You will learn from experience the optimum load. Never overload, as this will cause pieces to create impact damage with each other

Q6. Can the *ECO-mini “dry”* overheat?

A6. Definitely not. The machine has a thermal switch. In the unlikely event of it getting too hot, it will stop automatically.

Q7. Do I have to remove the labels from the jewelry pieces before polishing?

A7. It depends on the size of the label:

If the label is attached with a thread, you do not have to remove it.

If the label is bigger, the area where it is attached might not be polished.

If you have more than one label, they might get entangled and break off.

Q8. Is it possible to process chains with the *ECO-mini “dry”*?

A8. Only partially! Be careful with thin chains (< 3 mm), they may tie up in knots. Hollow chains may become squeezed flat (also be careful with necklaces). It is important to close the chain fasteners, before you start polishing. First check if H1/100 can be used. If this will stick in the chain links, select a smaller grade H1/400 or H1/500.

We strongly recommend you take care to make sure the pieces to be processed in the *ECO-mini "dry"*, are not in danger of being broken by the polishing action. All processing is at the Customers risk and we are unable to guarantee against damage, or repay any costs for articles damaged.

Q9. Which kind of alloys can be processed?

A9. All alloys of gold, silver, platinum, titanium can be processed, except for soft cast alloys, as used in fashion jewelry, and also 23 and 24 carat gold alloys.

Q10. What will the surface of the work-piece look like before it is dry polished?

A10. Already worn jewelry can be put directly into the dry-polishing granule (see also 1.). New jewelry should first be smoothed where necessary with emery paper size 600 or be pre treated in a wet-grinding process with the *ECO-mini "wet"*.

Q11. Can I also polish gold-plated jewelry?

A11. Keep to the maximum processing time of 30 minutes and use only H1/500. Be cautious. If the plating too thin, it might get polished off.

Q12. What are the advantages of the *ECO-mini "dry"* compared to ultrasonic baths, conventional tumbling machines or polishing by hand?

A12. Ultrasonic baths: Only the surface is cleaned. The roughness of the surface will stay unchanged!

Tumbling machines:

- For polishing in tumbling machines steel balls are generally used which can compress and work harden the surface of the metal. Because the surface is hardened and not completely smooth, it is nearly impossible to buff the work-pieces afterwards.
- *ECO-mini "dry"*: Similar action to hand-polishing. Also polishes more consistently resulting in less metal loss than hand polishing. To recover the gold from the used walnut granules, you can use the same system as when recovering the gold from the waste after hand polishing.

Tip - Do not use the ECO-mini "dry" as a cleaning machine. Worn jewelry should be cleaned in e.g. ultrasonic baths where dirt and other substances such as hair spray etc. can be removed before polishing.

Q13. How high is the noise emission when polishing?

A13. The *ECO-mini "dry"* is extremely quiet and is considerably quieter than a tumbling machine.

Q14. Have the work-pieces to be cleaned after the polishing ?

A14. There can be a thin layer of residuals from the polishing paste (oil) on the surface, which needs to be removed after the polishing process, if possible in an ultrasonic bath. You can use the same additive as when cleaning hand-polished jewelry.

Q15. Is the processing improved if the *ECO-mini "dry"* container is covered with a lid?

A15. No - but you can order one if required.

Q16. How can used granule be removed from underneath the disc?

A16. Normally this should not be a problem and you do not have to remove it.

If you need to, loosen the central screw, remove it, take off the disc and clean it. Replace the parts in reverse order.

Q17. Can you use gold and silver at the same time?

A17. Yes!

2. Frequently Asked Questions for ECO-mini "wet"

Q1. What kind of grinding media can be used in the *ECO-mini "wet"*?

A1. After extensive laboratory tests the best results were obtained with fine grinding plastic-chips. We recommend you only use the following Otec premium grade grinding plastic-chips.

- Plastic grinding chips KO 10 and PO 10 for pre-grinding.
- Plastic grinding chips KX 10 and PX 10 for fine grinding.
- Ceramic chips no smaller than 3 mm.

Q2. Will grinding with the *ECO-mini "wet"* damage jewelry stones, amber, plastic or pearls?

A2. Up to a hardness of 8.5 Mohs of the goods and using the appropriate procedure, you can process it.

Q3. How long can the plastic-chips be used?

A3. Due to abrasion they are getting smaller. The minimum size should be 3 mm.

Q4. What quantity of plastic-chips and jewelry pieces can I put into the *ECO-mini "wet"*?

A4. You can put approximately 1.5 liters of plastic-chips into the *ECO-mini "dry"*.

The amount of jewelry pieces depends on their design, volume and on the weight per piece. It amounts to a maximum volume of 100 – 200 ml with a maximum weight of about 100 g.

When processing more than one piece, the individual weight of each jewelry piece should not exceed 8 grams, to avoid damaging each other and leaving impact marks.

As a rule of thumb take a ratio of 1:7 (jewelry pieces : media)

Tip – Be cautious, always start with a small number of pieces. You will learn from experience the optimum load. Never overload, as this will cause pieces to create impact damage with each other

Q5. Can the *ECO-mini "wet"* overheat?

A5. Definitely not. The machine has a thermal switch. In the unlikely event of it getting too hot, it will stop automatically.

Q6. Is it possible to process chains with the *ECO-mini "wet"*?

A6. Only partially! Be careful with thin chains (< 3 mm), they may tie up in knots. Hollow chains may become squeezed flat (also be careful with necklaces). It is Important to close the chain fasteners, before you start processing.

We strongly recommend you take care to make sure the pieces to be processed in the *ECO-mini "wet"*, are not in danger of being broken by the grinding action. All processing is at the Customers risk and we are unable to guarantee against damage, or repay any costs for articles damaged.

Q7. Which kind of alloys can be processed?

A7. All alloys of gold, silver, platinum, titanium can be processed, except for soft cast alloys, as used in fashion jewelry, and also 23 and 24 carat gold alloys.

Q8. What are the advantages of the *ECO-mini "wet"* compared to conventional tumbling machines?

A8.

- Tumbling machines: In conventional tumbling machines all the dirt and the cut-off from the jewelry stays in the water-compound mixture and will be rolled or hammered into the micro-pores of the jewelry. Therefore the mirror-shining polishing result will not be given in the dry-polishing process.
- *ECO-mini "wet"*: All the dirt and the cut-off from the jewelry will be flushed out of the machine with the water-compound mixture. This means: Always clean surfaces.

Q9. How high is the noise emission when grinding?

A9. The *ECO-mini "wet"* is considerably quieter than a tumbling machine. When the machine starts to be louder, probably the foam is missing.

Q10. Have the work pieces to be cleaned after the grinding?

A10. Yes, definitely! Use an ultrasonic bath for about 2 to 3 minutes.

Q11. Can I cover the *ECO-mini "wet"* with a lid?

A11. Yes – a lid is offered by your dealer.

Q12. How can too small chips be removed from underneath the disc?

A12. Loosen the central screw, remove it, take off the disc and clean it. Replace the parts in reverse order.

Q13. Can you use gold and silver at the same time?

A13. Yes!



Mini Dry

Mini Wet

Mini Duo- Wet & Dry