



CASTING CONNECTION

Jewelry Mixer Tips

When mixing your jewelry investments, R&R recommends following these simple tips to ensure proper mix proportions and to avoid potential inclusion defects in your final castings:

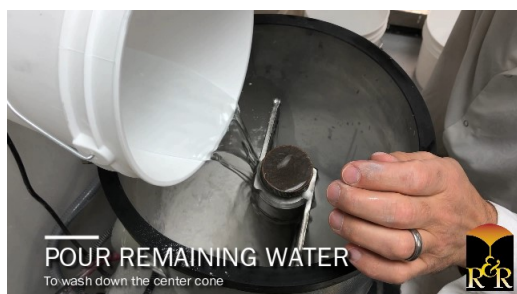
- Reserve water to wash down the mixer's center cone
- Flush the mixer valve to eliminate any residual powder from going into your molds

To demonstrate, we used a standard jewelry mixer, common in most shops. Be sure to properly measure water and powder according to product application instructions.



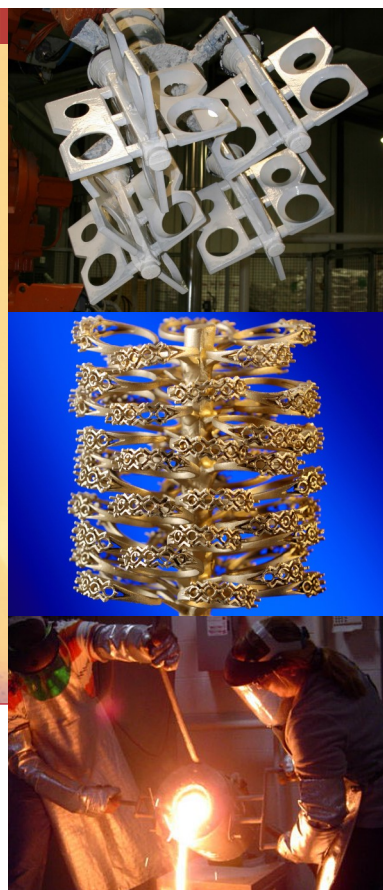
To watch a demonstration, check out the video on our [YouTube channel](#) → [Jewelry Tech Tip: Additional Mixer Tips](#)

Reserve Water to Wash Center Cone



Add the majority of the water to the mixer. Reserve a portion for later. Add all the investment powder to the mixer. Pour the remaining water over top to wash down the center cone. Be sure to stop and scrape the mixer and the cone to ensure all excess investment is incorporated down into the water.

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Have a specific question
or just need general
technical support?

Ask the R&R experts today!
RR-Technical@dentsply.com

For more FAQs, visit:
www.ransom-randolph.com/faqs

Plasticast® Bench Curing

Q. I am a Plasticast user and have a question about bench cure times. The window you site for bench cure times is 2-6 hours (if I don't plan to rewet and store a flask). I usually only bench cure for 2 hours. I am curious to understand any advantages to waiting longer than 2 hours.

A. In our research, we have discovered that the investment gains green strength as it sets on the bench. We've tested investments at 1 hour increments during bench cure and found that a flask that set for 2 hours is

significantly stronger than a flask that set for only 1 hour. The advantage to waiting longer than the minimum recommended 2 hours is that the investment continues to strengthen. Our research also found at 6 hours, additional strength is no longer gained.

Keep in mind, if you exceed the 6 hour set time, you need to maintain flask moisture by rewetting, covering with a wet cloth and sealing in a plastic bag to reduce potential cracking of your molds due to moisture loss.

"In our research, we have discovered that the investment gains green strength as it sets on the bench."

SculptaCast™
Modeling & Sculpture Waxes



Wax On! Wax Off!

R&R is excited to announce that all your favorite SculptaCast™ wax formulas are now available in pastillated form!

Pastillated SculptaCast waxes will continue to produce extremely low ash content and enable the cleanest burnout and most accurate reproductions allowable.

Plus, characteristics such as flow, toughness, durability, replication of detail, ductility, memory and

release are all engineered in!

What does this mean for you?

- Quicker and easier to handle than cumbersome wax chunks
- Easier to scoop out of the box
- Reduced melt time
- Allows for automated transfer of material

Learn more at:

www.ransom-randolph.com/sculptacast





Jan Grady



Tyler Trathen

Welcome Jan & Tyler!

R&R is pleased to announce Jan Grady's appointment as Customer Service Representative and Tyler Trathen's appointment as Western Regional Sales Manager.

In her position, Jan will be responsible for providing service to North America and US export customers; ensuring customer service excellence from order-taking through delivery.

Jan joins the R&R team with a vast background in customer service; including experience in logistics and warehouse distribution.

"I am proud to announce the appointment of Jan Grady as our new Customer Service Representative," said Karen Maguire, R&R Customer Service Supervisor. "We believe Jan will be a great asset to our team and are confident her expertise will greatly benefit our customers."

In his role, Tyler will be responsible for managing customer needs, conducting field evaluations and trouble-shooting. He will serve customers in the

United States in AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA and WY, as well as customers in Canada in AB, BC, NT, SK and YT.

Tyler joins the R&R team with extensive technical, sales and quality experience, having worked at an investment casting manufacturing foundry in California. In that position, he was responsible for customer/dealer relationships, tradeshow and quality assurance.

"I am proud to announce the appointment of Tyler Trathen as our new Western Regional Sales Manager," said Scott Todd, R&R Global Sales Manager. "We are confident that Tyler will continue our tradition of providing foundries with extensive process knowledge, exceptional technical expertise and innovative product technology."

Tyler graduated from Azusa Pacific University in Azusa, CA with a Bachelor of Science. Residing in Waddell, AZ, he enjoys coaching, playing volleyball and spending time with his family.

Please join us in welcoming Jan & Tyler to the R&R team!

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Customer Service Representative

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Tyler Trathen
Western Regional Sales Manager

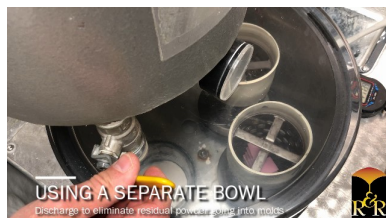
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Jewelry Mixer Tips

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Flush Mixer Valve to Eliminate Residual Powder



As unmixed material can sometimes get stuck in the mixer valve, R&R recommends flushing or purging the valve prior to filling your molds.

Using a separate bowl, discharge a portion of mixed investment into the bowl to eliminate the possibility of any residual investment stuck in the valve going directly into your molds. This ensures you have nothing but properly mixed investment being used in your molds.

Have questions about these tech tips or just have general questions?

Contact our technical team today!
RR-Technical@dentsply.com

Save the Date!

MJSA EXPO

What: The show for professional jewelry makers; dedicated to the best in jewelry-related tools, equipment, supplies and services

When: March 15-17, 2020

Where: New York, NY, USA

Venue: Jacob K. Javits Convention Center

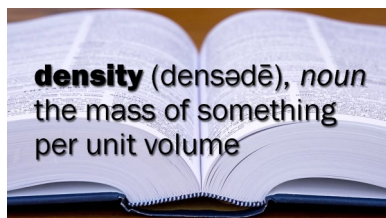
Stop by and see us in booth 223!

To learn more, visit: mjsa.org/eventsprograms/mjsa_expo

Density Testing



In a recent YouTube channel upload, Samuel Jeffrey, R&R's Applications Lab Technician, demonstrates how to test slurry density. Density is the mass of something per unit volume.



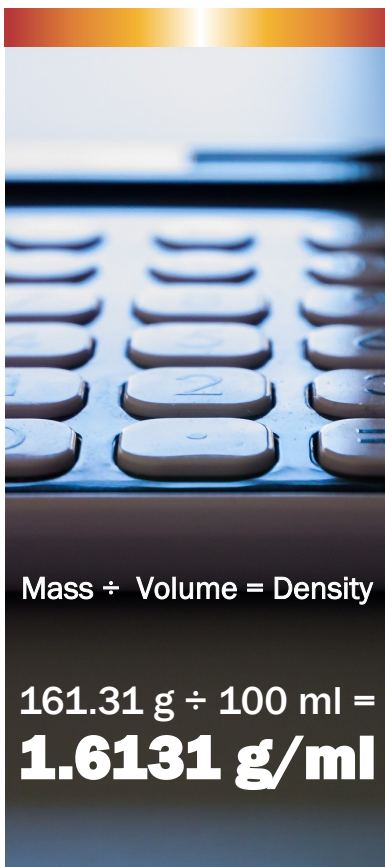
Density is important in maintaining slurry and coating integrity. R&R recommends testing slurry density weekly.

Measure density using a 100 ml graduated cylinder and a balance scale.

1. Place the graduated cylinder on the scale and tare scale.
Taring the scale



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Mass ÷ Volume = Density

161.31 g ÷ 100 ml =
1.6131 g/ml

Density Testing

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- resets the scale to zero so you can weigh the contents only.
2. Remove the cylinder off the scale and place it on the benchtop. This ensures a level reading and any spills won't go on the scale.
3. Pour the fully mixed sample into the graduated cylinder and fill it until the meniscus reaches the 100 ml line. The meniscus is the curve of the liquid in response to the container and is read at the bottom of the curve.
4. Place the graduated cylinder back on the scale and look at the readout.
5. Take the mass reading and divide by 100 to get the grams per milliliter measurement. **This is the density reading.**

Density testing is a fit for use test. The slurry density should be maintained ± 0.02 grams per milliliter from target density.

High Density

A high density reading could be due to high binder solids, high refractory solids, or an improper ratio when using two refractories of different densities.

Low Density

A low density reading could be due to low binder solids, low refractory solids, improper ratio of refractories, or air in the slurry.

Have questions about this test or just have general questions?

Contact our technical team today!
RR-Technical@dentsply.com



To watch a demonstration of this test, check out the video on our [YouTube channel](#) → [Density Testing](#)

Contact Us

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Ransom & Randolph



At R&R, *Investing with Innovation™* is more than just a slogan, it's a way of life. Dedicated to advancing the investment casting industry, we take pride in providing foundries with extensive process knowledge, exceptional technical expertise and innovative product technology. By coupling our revolutionary product developments with our experienced staff, manufacturing and warehousing facilities, we successfully help you become a casting industry leader. R&R is a wholly owned subsidiary of Dentsply Sirona (NASDAQ: XRAY).

R&R's core businesses are comprised of ceramic shell, industrial mold, jewelry and dental investment casting.

R&R takes great pride in providing customers with a pleasant procurement experience. R&R's Maumee, Ohio based customer service team services North America and US export customers. Our UK-based agent, HTM Tradeco, Ltd., provides service for the European Union. From initial order placement through delivery, R&R's customer service team takes responsibility for accurate and efficient processing of your material needs. As a result, R&R's customer service team is unmatched in the industry.

Investing with Innovation™