

Making XRF Pellets

1. Sieve sample to 212 μm fraction (standard particle size for XRF pellets).
2. Weigh 4-5 g of sieved sample into a weighing dish (smaller and larger sample sizes are okay, but this range makes removing pellet easy *and* produces a pellet with the correct size/height for XRF analysis.)
3. Add Ultrabind to the weighing dish at a ratio of 10:1 sample:Ultrabind. For example: for 4g of sample, add 0.4g of Ultrabind; for 4.5g of sample, add 0.45g of Ultrabind.
4. Mix well.
5. Place die bottom on die body, and insert one metal disk, followed by pellet cup. Push both disk and cup to the bottom of the die before proceeding.
6. Add sample/Ultrabind blend to cup in die. If sample particles adhere to inside walls of die, wipe it clean with a Kimwipe.
7. Place second metal disk on top of sample/Ultrabind blend with shiny (or most smooth) side down.
8. Press disk down firmly, and insert the die rod on top of disk.
9. Center die assembly in hydraulic press, and turn silver wheel until die assembly is secure.
10. Turn on hydraulic press (if necessary). Press into pellet by pushing Run (the program is 25 tons of pressure, hold 3 mins, release 1 min.)
11. Remove die bottom and place die on large aluminum cup. Hammer out disks and pellet using rubber mallet. Label pellet.
12. Wipe down all die components with a Kimwipe.