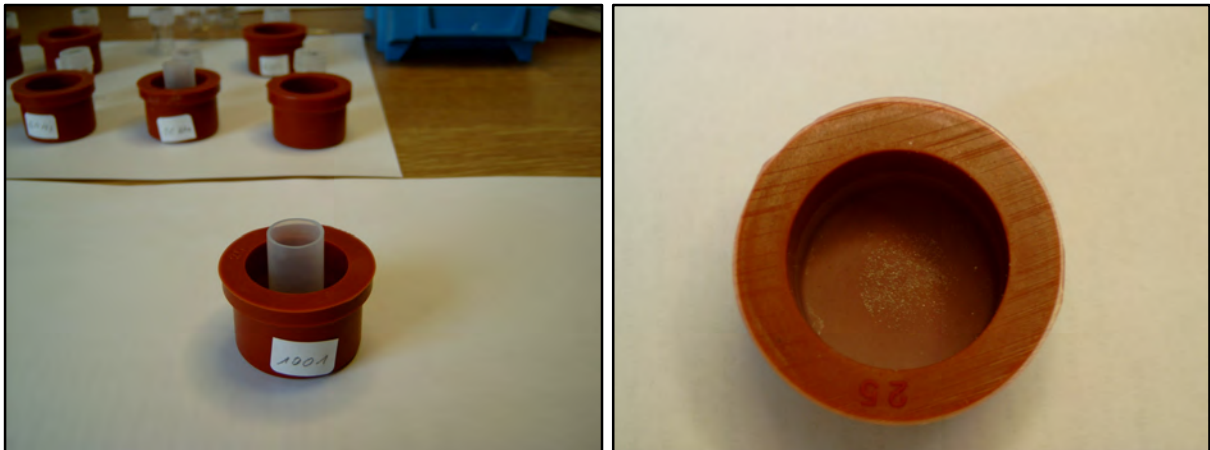


Mounting for apatite fission-track analysis

- Use clean FlexiForm mounting forms of rubber material (Stuers, 25 mm \varnothing), attach sticker with sample ID before embedding.
- Intersperse grains into FlexiForm with the aim to place as many grains as possible in the center of the form but without grains touching each other. There should **not** be piles of grains. A plastic tube can be used to intersperse the grains in the center (the rims of the mounts will be cut in the end, so grains there will be lost).



Left: Plastic tube to help intersperse grains in the center of the FlexiForm mounting form. Right: FlexiForm with apatite grains. Photos: E. Enkelmann.

- When forms are labeled and grains are interspersed you can prepare the epoxy resin for embedding. We use the EpoFix Kit (Stuers).
- Mix the resin and hardener at the given ratio by volume or weight. You can use syringes (mixing by volume); be sure to release all air bubbles from the resin and hardener in the syringe to have an exact measure. First fill the resin into a paper cup, then the hardener (from a different syringe) and stir with a spatula for about 3 minutes. Be careful to not introduce too many air bubbles and to not foam the epoxy. (15 parts resin and 2 parts hardener (by volume) will fill you 3 forms.)
- Fill the epoxy carefully into the forms by introducing small amounts from the rim of the form so that it can slowly fill the bottom of the form from one side (picture below). You can use the spatula for this. In this way, the epoxy slowly surrounds the apatites without washing them away and the formation of air bubbles is reduced to a minimum.
- Leave the mounts for hardening for 2 days.
- Press the mounts out of the embedding forms and immediately scratch the sample ID into the back of the mount.
- Clean the forms from remaining epoxy. Over time, the forms become brittle or the rubber of the inner wall may be damaged, then the forms need to be replaced.



FlexiForms with interspersed grains ready for embedding and epoxy resin utensils. Photo: S. Falkowski.



Epoxy embeds apatite grains slowly from one side. When the bottom of the form is filled slowly, fill about half of the form with epoxy. Avoid air bubbles. Photo: S. Falkowski.