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Preparation of Araldite AY103

The preparation of the adhesive is done in a standardized procedure. Adhesive and hardener are mixed in a small beaker, obeying the mixing ratio given by the producer (100 parts per weight of AY103 to 40 parts per weight of HY991). The beaker is put under a cover and evaporated. It is mixed for 5–10 minutes by means of a conventional blender. Mixing under vacuum is mandatory to avoid air bubbles in the adhesive. If necessary, glass bubbles are added afterwards and mixed 2–3 minutes by hand. The glass bubbles are delivered by R & G GmbH Faserverbundwerkstoffe, Germany. Their density is 0.12g/cm^3 . The quantity added is typically 25 to 50 percent of volume of glass bubbles, depending on the application. Figure 1 shows a photograph of the device used for the preparation of the adhesive.



Figure 1: Mixing station for the preparation of the adhesive.