PREPARATION OF 500 ml OF A 2% GELATINE SOLUTION

If no re-sizing is required and gelatin is only used for repairs, it is better to prepare less solution, e.g. 50 ml. A 2% solution can be diluted later if necessary. For surface sizing of paper a 0,5 - 1% solution is recommended. Always try to request a datasheet.

Chemicals

- Gelatine type B
- Demineralised or distilled water

Materials and equipment

- Laboratory balance
- Glass beaker 500 ml
- Stainless steel spoon
- Label

Procedure

- Weighing the Gelatine (10g per 500 ml water)
  - Take a 500 ml glass beaker (weighing vessel)
  - Check if the balance pan is clean and dry
  - Place the glass beaker on the laboratory balance
  - Tare the balance
  - Take some gelatine from the original container with a spoon
  - Add little by little to the beaker until 10g is reached
  - Take the beaker from the balance
  - Clean the balance if necessary

- Swelling of the gelatine in the distilled water
  - Pour demineralised water on top of the gelatine until 500 ml are reached
  - Stir the gelatine with the spoon or glass rod and leave to swell for at least an hour, or over night

- Dissolving the gelatine by warming
  - Before use the gelatine needs to be dissolved by rising the temperature to 40°C
  - Stir occasionally until the gelatine is fully dissolved

Suggested gelatine properties

- Quality: Food quality (not photo quality!),
- Type: Type B (alkaline pre-treatment), 180 – 220 Bloom
- Viscosity: low viscosity 4-5 mPas
- pH: 6
- IEP: pH 4,7-5,4
- Interaction: will bind kations due to the high amount of carboxylic groups above pH 5,4

Suppliers

GELITA Group companies: Trade name of gelatines: GELITA®. www.gelita.com
Deutsche Gelatine-Fabriken (DFG) Stoess AG: www.gelatine.org

Storage

It is preferred to prepare just the necessary amount of gelatin and use as much as possible. If there is a little left over, just pour it into the sink. If there is more left, keep it in the fridge and use it as soon as possible.

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The authors can not be held responsible for any damage caused by the application of the above-described method. May 2007
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Necessary equipment

Weighing the gelatine granules

Adding demineralised water

Stirring

Gelatine not yet swollen

Gelatine after 1 hour of swelling

Increasing the temperature to 40°C

Gelatine solution is ready

If necessary, the solution can be dissolved further