Determination of equilibrium moisture in pulp, paper and paperboard for chemical analysis

1. Scope and significance

   1.1 The following procedure applies to pulp, paper, paperboard, and paper products, except those containing significant quantities of materials other than water that are volatile at 105 ± 2°C or less or for materials that are oxidized or decomposed above 102°C. 

   1.2 This method should be followed to calculate the results of a chemical analysis of pulp, paper and paperboard on a moisture-free basis.

   1.3 This method should not be used to determine an “as received” or “use” moisture content. Use TAPPI T 412 “Moisture in Paper,” or T 210 “Sampling and Testing Wood Pulp Shipments for Moisture.”

2. Apparatus

   2.1 Weighing container, a wide-mouth, glass-stopper weighing bottle approximately 65 mm in diameter and 45 mm high. For larger specimens, use an airtight metal or other suitable airtight container (the container should not absorb moisture), preferably equipped with a removable wire basket, and of such a size as to accommodate the specimens without their being tightly packed.

   2.2 Drying oven, constant-temperature, with means of ensuring adequate temperature control at 105 ± 2°C and free access of air.

   NOTE 1: There is danger of local overheating if the specimens are exposed to direct rays of unshielded heating elements.

   2.3 Balance, accurate to 1 mg, for weighing specimens of 2 g; for larger specimens, accurate to 0.05% of the original weight of the specimen.