

The information and data contained in this document were prepared by a technical committee of the Association. The committee and the Association assume no liability or responsibility in connection with the use of such information or data, including but not limited to any liability or responsibility under patent, copyright, or trade secret laws. The user is responsible for determining that this document is the most recent edition published.

Moisture content of paper: terminology and conversion

Scope

This Technical Information Paper covers the terminology typically used when reporting the moisture of paper and paperboard and related materials. A graph is provided to permit rapid conversion between units used when reporting the water content of paper and paperboard.

Significance

Paper and paperboard contains water (moisture) in equilibrium with room air. The amount of moisture can effect mechanical and dimensional properties of the material. In addition, paper materials are typically bought and sold on a weight basis and it must be clear between buyer and seller the meaning of specifications used and their methods of calculation.

Safety precautions

None required for this TIP.

Content

The reverse of this TIP shows a chart for conversion of various parameters regarding moisture content of paper. The terminology involved is as follows:

W = water in sample, g

S = dry solids in sample, g

W/S = grams of water per gram of dry solid

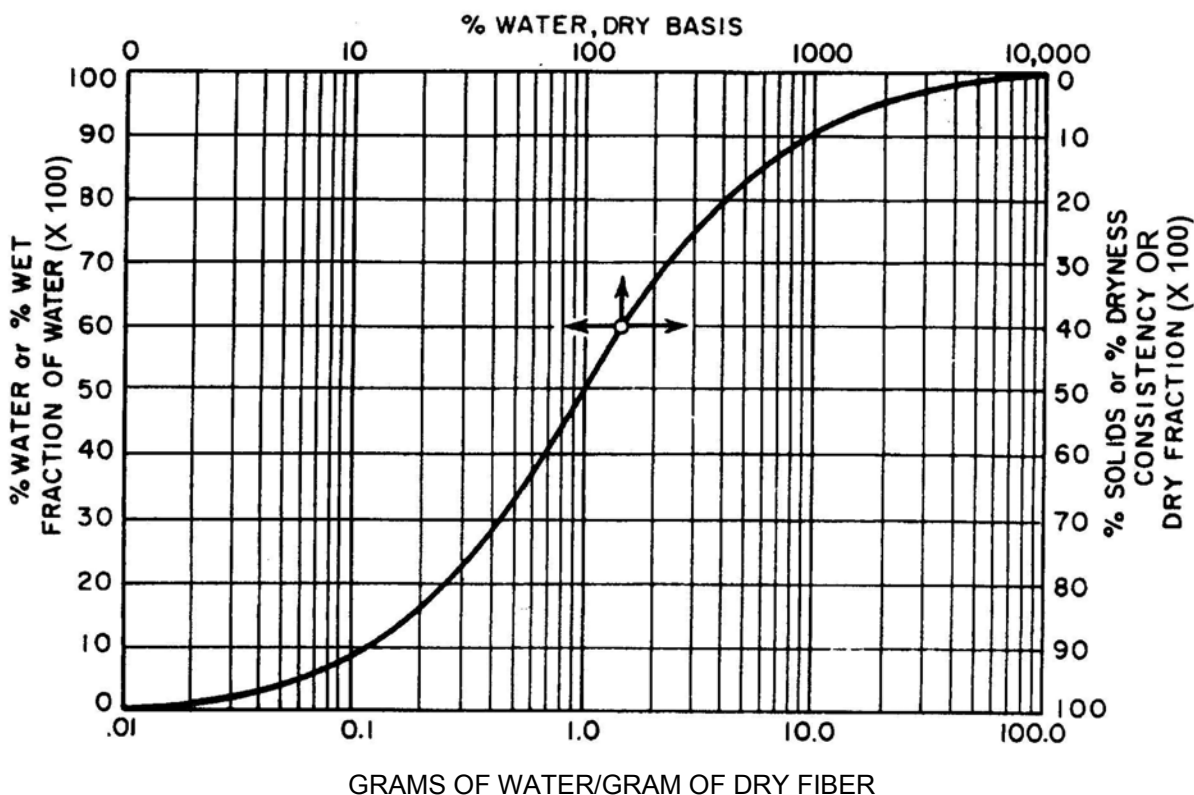
$$\frac{W}{W + S} \times 100 = \% \text{ water, wet basis}$$

$$\frac{W}{W + S} = \text{fraction of water (or wet fraction)}$$

$$\frac{W}{S} \times 100 = \% \text{ water, dry basis}$$

$$\frac{S}{W + S} \times 100 = \% \text{ solids, \% dry or \% dryness consistency}$$

$$\frac{S}{W + S} = \text{dry fraction}$$



Example
of use

Bottom scale
1.5 g of H₂O/
g of dry fiber

Left scale
= 60% water
= 60% wet
= 0.60 wet fraction

Top scale
= 150% water
(dry basis)

Right scale
40% solids
40% dryness
40% consistency
0.40 dry fraction



Documents

Document Sharing Hub