

## Useful formulas

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### Moisture

$$M_{wb} = \frac{W_{water}}{W_{total}} \times 100$$

where:

$M_w$  = moisture content (%) on a wet weight basis  
(this is the standard basis used by the industry)

$W_{water}$  = weight of water in sample (grams or pounds)

$W_{total}$  = total weight of sample, including water (grams or pounds)

### Shrink

$$S = \left[ 1 - \frac{100 - M_i}{100 - M_f} + I \right] \times 100$$

where:

$S$  = shrink factor (%)

$M_i$  = initial moisture (%)

$M_f$  = final moisture (%)

$I$  = invisible loss (decimal) This is often set at 0.005 (1/2%) and accounts for weight lost in handling (dust and fines). Dockage level is sometimes added in with invisible loss. It is highly variable among lots.