



Pay Quantities

Method of Computing Pay Quantities of Pugmill Mixed Material

To illustrate the method of computing pay quantities of central-mix aggregate with or without cement, let us assume that 500 tons of material was shipped containing 10 percent total moisture and 4 percent cement. (The test for total moisture must be made on a sample of material obtained by the Plant Quality Control Technician after all water has been added to the mix in the pugmill and after the material is ready for job shipment. This test must be conducted periodically during a day's operation.) Assume also that the average optimum moisture of the material is 6 percent. (This information is furnished by the District Materials Engineer.)

Step 1 - Determine Total Allowable Moisture

Optimum Moisture + 2% = Total Allowable Moisture

6% + 2% = Total Allowable Moisture

8% = Total Allowable Moisture

Step 2 - Determine the Dry Weight of the Aggregate

Tons Shipped / (1 + % Avg. Moist.) = Dry Wt. of Aggregate

500 / (1 + 10%) = Dry Weight of Aggregate

500 / (1 + .10) = Dry Weight of Aggregate

500 / (1.10) = Dry Weight of Aggregate

454.55 = Dry Weight of Aggregate

Step 3 - Determine the Pay Quantity

Dry Weight of Aggregate x (1 + % Allowable Moisture) = Pay Quantity

454.55 x (1 + 8.0%) = Pay Quantity

454.55 x (1 + .08) = Pay Quantity

454.55 x (1.08) = Pay Quantity

490.91 = Pay Quantity

This is the total combined tonnage that should be computed as the amount eligible for payment. Notes should be made on the input form (Form TL-52A) and on the weighpersons Daily Summary Sheet showing the average optimum moisture and the total moisture, in order that the proper corrections for payment may be made later in the net weight recorded on the weigh ticket and in materials notebooks. If material is stockpiled after production, it will be necessary to perform tests for total moisture and record results on the above indicated forms at the time of shipment of the material to the project. If the moisture in the stockpile is below the minimum required (optimum minus 2 percent), either the stockpiles must be sprinkled to bring the moisture within allowable limits or the District Materials Engineer may require the material to be run through the pugmill again. Computations for the pay quantity should be carried out to the same decimal point as the pay item.

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