

SAMPLING METHOD MB2

SAMPLING FROM A CONVEYOR BELT

1.	SCOPE This method describes the procedure to be followed when samples are taken from a conveyor belt for the following purposes: crushed or natural material for the gravel layers of a road (basecourse, subbase or selected layer); crushed and/or sieved-out single – sized aggregate for bituminous or concrete work; fine aggregate for bituminous or concrete work. N.B. This method is not suitable if the crushers of a stone crusher first have to be emptied.	Maximum Aggregate Size (mm) 75 63 50 37.5 25 19 13.2 9.5 and smaller	Minimum compound secondary size (kg) 150 125 100 75 50 25 15 10
2.	APPARATUS 2.1 A suitable spade. 2.2 A 100 mm paintbrush. 2.3 Suitable containers for samples such as strong canvas or plastic bags. 2.4 Two templates whose from corresponds to that of the conveyor belt. 2.5 Suitable metal pans such as riffling pans in which to catch the material when it is taken off the conveyor belt. 2.6 A riffler with openings of approximately 25 mm and six matching pans. 2.7 A 19 mm sieve with a recommended diameter of 450 mm. 2.8 A basin approximately 500mm in diameter.	4	METHOD. Decide during production, in a random manner, when a single sample should be taken. Where a conveyor belt is concerned it is easiest to work on a time basis, in other words to decide to take samples at say 3 hours, 5.5 hours and 6.3 hours after production has started. At the designated time the conveyer belt stopped. Two templates are then placed in position on the belt such that the material between the two templates will yield a single sample which when mixed and riffled will yield a compound sample of the size specified in paragraph 3. The material between the templates is then carefully scraped off the conveyor belt into metal pans held next to the belt, and the dust and fines are brushed off the belt into pans with the 100 mm paintbrush. The belt is started again and the above procedure repeated twice more. The material sampled is now thoroughly mixed to form the compound sample and divided according to Methods MD1 and MD2 to yield a sample of the desired size.
2.	SAMPLE SIZE The size of each single sample taken from the conveyor belt will depend on what test are to be carried out and on how homogeneous the material is. The following table gives an indication of the minimum masses of the compound sample which should be aimed at	5	REPORTING Samples from the conveyor belts are often tested in field laboratories. In such cases a proper record must be kept of the source, the sample number, the date of sampling, a description of the material, etc. A form similar to TMH5-1 may be used. When samples are sent to a central laboratory, they must be accompanied by a properly composed report giving full

details about the samples. Important particulars are the location and proposed – or approved source, a description of the material of which the sample is composed, the number and type of containers of each sample, the date and time of sampling and the number. (See also paragraph 4 of Chapter 7)

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NOTE

6.1

The primary single samples must be large but never the less in a form which makes practical handling of the compound sample possible. Because of the size, the secondary compound sample as indicated in paragraph 3 must be divided up immediately to facilitate the transport thereof. The tertiary sample size is determined by test method