ALDOT-321-79
TEST FOR GLASSY PARTICLES IN CRUSHED SLAG

1. Scope

1.1. This method of test covers a procedure for the determination of the amount, by weight, of glassy particles contained in crushed slag coarse aggregate.

2. Apparatus

2.1. The apparatus shall consist of the following:

2.1.1. Balance - The balance shall conform to AASHTO M-231, Class D for samples less than 2 kg, Class E for samples of at least 2 kg but less than 5 kg, and Class F for samples of 5 kg or more.

2.1.2. Sieves - The sieves with square openings shall be mounted on substantial frames constructed in a manner that will prevent loss of material during sieving. The woven wire cloth sieves shall conform to AASHTO M-92. Perforated plate sieves with square openings shall conform to the requirements of ASTM E 323.

2.1.3. Oven - The oven shall be capable of maintaining a uniform temperature of 230 ± 9°F (110 ± 5°C).

3. Test Samples

3.1. Samples for glassy particle determination shall be obtained in accordance with AASHTO T-2. Samples shall be dried and reduced to testing size in accordance with AASHTO T-248.

3.2. Samples of coarse aggregate shall not weigh less than the weight indicated in AASHTO T-27.

4. Procedure

4.1. Sieve in accordance with AASHTO T-27.

4.2. Physically examine all particles retained on each sieve size used through the No. 4 (4.75 mm) sieve. Place all particles that have a glossy, slick, non-porous glassy finish on any one face, into a weighing container.

4.3. Weigh and record the total weight of all glassy particles.

5. Calculations

5.1. Calculate the percentage of glassy particles retained on the No. 4 (4.75 mm) sieve on the basis of the total weight of the sample.

6. Reporting

6.1. The percent of glassy particles shall be reported on form BMT-91 when tested by approved producers. When test is performed by Department personnel, percent of glassy particles shall be reported on BMT-16.