

SPECIFICATIONS AND TESTS FOR BITUMINOUS ROAD MATERIALS.

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The tests and specifications for bituminous materials for various types of pavements are becoming standardized through efforts of: The American Society of Testing Materials, The American Society of Municipal Improvements, The Asphalt Association and various public service bodies. The number of tests are being reduced to a practical working basis and while certain state highway commissions still maintain varied exceptions to the proposed standard tests, most of these differences will soon be harmonized.

The tests commonly specified are: penetration, flash point, loss on heating, penetration of residue, ductility and percentage of bitumen soluble in carbon tetrachloride.

The penetration test is most important for consistency of asphalt in specifying the grade desired and controlling the manufacture.

A much needed simplification as regards asphalt, (effective Jan. 1, 1924), has been brought about through the efforts of Mr. Herbert Hoover, Secretary of Commerce, and the various organizations interested in its preparation and use. For paving purposes the penetration limits are reduced from 88 to 9 as follows:

	Penetration Limits		
Sheet Asphalt	25- 30	30- 40	40- 50
Asphaltic Concrete	50- 60	60- 70	85-100
Asphaltic Macadam and Surface Treatments	100-120	120-150	150-200

Joint fillers for various types of construction were reduced from 14 to 4 as follows:

	Penetration Limits		
For brick	35-50		
For admixtures of sand.....	50-60	60-70	85-100

The mid point is desired in each case with an allowable tolerance to either limit.

It is very important that correct sampling of materials be adhered to. Samples for testing should represent an average of the bulk. They should not be contaminated with dirt and should be properly marked for identification. A sample for laboratory tests should contain at least one quart of the bituminous material.