



NATIONAL PETROCHEMICAL COMPANY  
STANDARDS

CONSTRUCTION STANDARD  
FOR  
ASPHALTIC CONCRETE ROADS & ASPHALT PAVING

NPCS-CS-W-06

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1 SCOPE

This standard describes the engineering requirements of materials and construction of asphaltic concrete roads and paving of an industrial complex.

2 STANDARDS AND CODES

The latest edition of the following codes and standards shall constitute minimum requirements for this standard, where applicable.

- AASHTO American Association of State Highway and Transportation Officials.
  - M 145 The Classification of Soils & Soil Aggregate Mixtures for Highway Construction Purpose.
  - M 226 Viscosity Graded Asphalt Cement.
  - T 166 Bulk Specific Gravity of Compacted Bituminous Mixtures.
- Asphalt Institute
  - MS 2 Mix Design Methods for Asphalt Concrete and Other Hot Mix Types.
- ASTM American Society for Testing and Materials.
  - C 131 Test Method for Resistance to Abrasion of Small Size Coarse Aggregate by Use of the Los Angeles Machine.
  - D 242 Specification for Mineral Filler for Bituminous Paving Mixtures.



|        |                                                                                                                                                     |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| D 692  | Standard Specification for<br>Course Aggregate for<br>Bituminous Paving Mixtures.                                                                   |
| D 698  | Test Method of Moisture<br>Density Relations of Soils<br>and Soil Aggregate<br>Mixtures, Using 5.5 lb<br>(2.49 kg) Hammer and 12"<br>(305 mm) Drop. |
| D 977  | Specification for<br>Emulsified Asphalt.                                                                                                            |
| D 995  | Standard Specification for<br>Requirements for Mixing<br>Plants for Hot Mix Laid<br>Bituminous Paving Mixtures.                                     |
| D 1073 | Fine Aggregate for<br>Bituminous Paving Mixtures.                                                                                                   |
| D 1557 | Test Methods for Moisture<br>Density Relation of Soils<br>and Soil Aggregate Mixture<br>Using 10 lb (4.5 kg) Hammer<br>and 18" (457 mm) drop.       |
| D 1559 | Test Methods for Resistance<br>to Plastic Flow of<br>Bituminous Mixtures Using<br>Marshall Apparatus.                                               |
| D 2027 | Specification for Cut Back<br>Asphalt (Medium Curing<br>Type).                                                                                      |
| D 2419 | Test Methods of Sand<br>Equivalent Value of Soils<br>and Fine Aggregate.                                                                            |
| D 2487 | Classification of Soil for<br>Engineering Purposes.                                                                                                 |
| D 3515 | Standard Specification for<br>Hot Mixed, Hot laid<br>Bituminous Paving<br>Materials.                                                                |

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3 DEFINITIONS AND DESCRIPTION

3.1 Roads used for construction, traffic shall not receive a surface course until heavy construction traffic is finished using the road. Apply a prime coat to the base course before using road for construction traffic.

3.2 Dimensions, locations, road cross sections, and geometry will be shown on related drawings of project.

3.3 The following are definitions of terms are used in this standard:

|                |                                                                                                                                     |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Sub-grade      | The road-bed soils up to plant rough grade.                                                                                         |
| Sub-base       | The layer(s) of specified or selected material placed on the sub-grade to support a base course.                                    |
| Ease course    | The layer(s) of specified or selected material of designed thickness placed on a sub-base or sub-grade to support a surface course. |
| Surface course | One or two layers of an asphalt pavement structure designed to accommodate the traffic load.                                        |
| Wearing course | The top layer of a two-layer surface course which resists skidding, traffic abrasions, and the disintegrating effects of climate.   |
| Binder course  | The bottom layer of a two-layer of surface course.                                                                                  |

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