

ASPHALT BINDER, CUTBACK ASPHALTS, AND EMULSION ASPHALTS

The following asphalt companies have adopted the Department's procedure to supply products from their respective refineries and material from them can be accepted for immediate use when accompanied by a certified shipping ticket for each separate shipment load:

Asphalt Binder:

APAC-Missouri, Inc.	- Springfield, MO. (Terminal) -PG64-22, PG 70-22, PG76-22
APAC-Oklahoma, Inc.	- Catoosa, OK.(Terminal) - PG64-22
Asphalt Products	- Little Rock, AR. (Asphalt Plant) – PG70-22
Asphalt Terminals & Transportation, LLC.	- Muskogee, OK. - PG64-22, PG 70-22, PG76-22
Calumet Lubricants Company	- Shreveport, LA. - PG64-22
Coastal Energy Corporation	- Miller, MO. (Terminal)-PG64-22 - Willow Springs, MO. (Terminal)-PG64-22, PG70-22
ConocoPhillips Company	- Granite City, IL. -PG64-22, PG 70-22, PG76-22 - Wood River, IL. -PG64-22
Ergon Asphalt and Emulsion, Inc.	- Memphis, TN. -PG64-22, PG 67-22☆☆, PG 70-22, PG76-22 - Vicksburg, MS. -PG64-22, PG 67-22, PG 70-22, PG76-22
Heartland Asphalt Materials	- Memphis, TN. -PG64-22, PG 70-22, PG76-22 - New Madrid, MO. -PG64-22
Hunt Southland Refining Company	- Sandersville, MS. -PG64-22, PG67-22☆☆ PG 70-22, PG76-22 - Vicksburg, MS. (Terminal) -PG64-22
Lion Oil Company	- El Dorado, AR. -PG64-22, PG 70-22, PG76-22 - Muskogee, OK. -PG64-22, PG 70-22, PG76-22
Marathon Petroleum Corporation	- Memphis, TN. -PG64-22, PG 70-22, PG76-22
NuStar Marketing LLC (NuStar Energy LP)	- Tulsa, OK.(Catoosa Terminal) - PG64-22 PG 70-22, PG76-22
Valero Marketing & Supply Co.	- Ardmore, OK. -PG64-22, PG 70-22, PG76-22 - Muskogee, OK. (Frontier Terminal)-PG64-22

☆☆ PG67-22 may be substituted for PG64-22 (Must meet material requirements in following table). Mix designs with PG67-22 must be accepted by AHTD before use.

PG 67-22		
PG 67-22 asphalt binder shall be production straight run binder.		
Property	Specification	Test Method
Original Binder		
FlashPointTemperature	Minimum 230°C	AASHTO T 48
Rotational Viscosity	Maximum 3 Pa·s@ 135°C	AASHTO T 316
Dynamic Shear $G^*/\sin \delta$	Minimum 1.00 kPa @ 67°C @ 10 rad/sec	AASHTO T 315
Rolling Thin Film Oven Residue (AASHTO T 240)		
Mass Change	Maximum 1.00%	AASHTO T 240
Dynamic Shear $G^*/\sin \delta$	Minimum 2.20 kPa @ 67°C @ 10 rad/sec	AASHTO T 315
Pressure Aging Vessel Residue (AASHTO R 28)		
PAV Aging Temperature	100°C	AASHTO R 28
Dynamic Shear $G^* \times \sin \delta$	Maximum 5000 kPa @ 26.5°C @ 10 rad/sec	AASHTO T 315
Creep Stiffness, S	Maximum 300 MPa @ -12°C	AASHTO T 313
m-value	Minimum 0.300 @ -12°C	AASHTO T 313

Cutback Asphalts:

APAC - Missouri	- Springfield, MO. – MC-30,MC-250, MC-800, MC-3000
Coastal Energy Corporation	- Miller, MO. – MC-30,MC-250, MC-800
Ergon Asphalt and Emulsion, Inc.	- Memphis, TN. - MC-30, MC-250, MC-800,
Heartland Asphalt Materials	- New Madrid, MO. – MC-30,MC-250, MC-800, MC-3000

Asphalt Emulsions:

- Coastal Energy Corporation - Miller, MO. -CRS-2, CRS-2L, SS-1
- Ergon Asphalt and Emulsion, Inc. - Catoosa, OK. - SS-1, CRS-2P
 - Little Rock, AR. - CRS-2, CRS-2P, CSS-1
 - Memphis, TN. - CRS-2, CRS-2L, CSS-1
 - Mt. Pleasant, TX. - CRS-2, CRS-2L, CRS-2P
CSS-1, SS-1
 - Vicksburg, MS. - CRS-2, CRS-2L,
CSS-1, CSS-1H(MOD)
- Heartland Asphalt Materials - New Madrid, MO. - CRS-2, CRS-2L
CSS-1, CSS-1h

METHOD OF DOCUMENTATION OF ACCEPTANCE:

Bills of Lading shall be kept on file at the asphalt plant. The plant inspector shall note on the "Report of Inspection at Asphalt Plant"(M-389), the manufacturer's lab number of the test represented by that specific load, the tanker number, Bill of Lading number and the source and grade of the asphalt binder. The manufacturer's material certification/s are on file at the Materials Division.

To provide proper documentation of the use of certified liquid asphalts (emulsions, primes, tack, and cutbacks) the roadway inspector shall note on Form 19-208 and 19-209 (in "Remarks"), as applicable, the name of the liquid asphalt supplier. The asphalt type, tank number and the producer's test number are required to be entered at the top of those forms. The producer test number should be entered in the seal number space.

PROCEDURE AGREEMENT: Asphalt materials are accepted for use on Arkansas Highway and Transportation Department projects based on certification by the producer. The listed producers have agreed to requirements for certification acceptance as follows:

**CERTIFICATION AGREEMENT
PERFORMANCE GRADED ASPHALT BINDER, CUTBACK ASPHALTS, AND EMULSION ASPHALTS**

Asphalt materials are accepted for use on Arkansas Highway and Transportation Department projects based on certification by the supplier. Suppliers are the entities that have responsibility for the final asphalt material properties. This may include refineries, terminal operators, manufacturers and distributors of asphalt modifiers, asphalt hot mix plant operators, job prime contractors, or others. In order to supply asphalt materials by certification agreement the supplier must have a qualified laboratory or employ a qualified laboratory capable of performing quality control testing. The following information must be provided:

- Documentation of the laboratory's AASHTO accreditation or participation in AMRL reference sample program/s and AMRL inspections, or other approved accreditation program.
- A copy of the quality control (QC) program for each facility. This information shall include in detail the types and frequency of QC testing. The QC program shall include provisions for QC testing of asphalt materials modified by the supplier at a refinery or at a terminal or at an asphalt hot mix plant. All changes to the QC program must be approved by the Department before they are implemented.
- Historical data showing conformance with specification requirements.
- Results of on-site inspections of the facility and testing laboratory by AHTD personnel or approved agencies.

The four preliminary requirements listed above must be approved by the Department prior to acceptance of the agreement.

Certified suppliers have agreed to requirements for certification acceptance as follows:

1. Material for use on highway projects will be sampled and tested by the supplier as defined by the supplier's Department approved Quality Control Plan. One copy of all quality control tests results shall be promptly forwarded to the Materials Division. The supplier shall immediately notify the Department and the purchaser/s of out of specification material and of the steps taken to determine the extent of the problem and of actions to bring the material back into compliance.
2. One copy of the Bill of Lading for each shipment is to be sent with the driver for AHTD field personnel. In addition to the information normally furnished on the Bill of Lading (such as Producer name, date, net weight, carrier) the following must be included:
 - a. The location of the asphalt hot mix plant shall be designated on all performance graded asphalt binder shipments. For shipments of performance graded asphalt binder, the specific gravity at 16° C (60°F) are to be shown.

b. The state job number (or state purchase order number), shall be shown on all emulsified and cutback asphalt shipments. On shipments of emulsified asphalt and cutback asphalts, the weight per Liter (gallon) and the quantity must also be shown.

c.

1) The identification of the storage tank (if applicable) from which the material was loaded.

2) The location where the trailer was loaded or

3) The location of the hot mix plant where it was blended.

d. The identification of the hauling trailer and its contents.

e. Laboratory number/identifier of the laboratory tests that are the basis of the certification of the material

f. A certification statement reading substantially as follows must appear on or accompany the Bill of Lading, "This certifies that this material complies with AHTD specifications for _____. " The statement is to be signed by an authorized representative of the company.

The supplier will submit a monthly summary report from each facility of all QC results for each type and grade of asphalt material shipped to the Department. The monthly summary report shall be in a tabular form, preferably, in a digital spreadsheet format which can be e-mailed to the Materials Division (materials@arkansashighways.com). The Department will review these summary reports and make suggested changes to the supplier's QC program if warranted.

The Department will visit the supplier's facilities as necessary to review the QC program, inspect facilities, and/or sample materials. As determined by the Department the supplier will periodically test split samples. The Department will take field samples, as necessary, to verify results of the supplier's QC program.

Acceptance by this method is subject to withdrawal for failure to comply with the supplier's Quality Control Program and the above requirements, if unsatisfactory results are obtained in the field, or if samples taken at the job site indicate non-compliance with the specifications. In the event of the withdrawal of certification acceptance, it will be necessary that material be sampled at the job site, samples transported to the Materials Division and tests performed prior to release or continued use of the material.

Company Name – Plant Location

Signature

Typed/Printed Name

Date

Telephone No.: _____ Fax No.: _____

Email Address: _____