

**ARIZONA DEPARTMENT OF TRANSPORTATION
MATERIALS GROUP
APPROVED WARM MIX ASPHALT (WMA) TECHNOLOGIES LIST
Revised December 17, 2018**

Requirements which must be met to be included on the approved list:

1. The WMA technology must be a recognized WMA technology with successful projects constructed nationally, with production of at least 100,000 tons of WMA produced and placed on State DOT highways.
2. The WMA technology manufacturer must submit documentation from a minimum of three construction projects using the WMA technology on State DOT highways. The documentation must include a mix design with mechanical property test results and the Quality Control/Quality Assurance test results measured during production for each project. The documentation must include DOT contacts and phone numbers, product name and supplier, dates of construction, and the location and highway for each project submitted.
3. The WMA technology manufacturer must provide documentation and test results showing the effect that the WMA technology has on the rheological properties of virgin asphalt binders beyond such time needed to produce, place, compact, and allow the WMA mixture to cool. Documentation must include asphalt binder performance grade test data over the range of WMA technology percentages recommended by the WMA technology manufacturer and used on past projects.
4. On a project where WMA is allowed by specification, the WMA technology manufacturer must partner with a contractor and an ADOT Construction District / Project to construct a test section, using the WMA technology. The WMA technology representative must be present for the construction of the test section. The WMA test section must be a separate Lot and the tonnage must be at least 1000 tons, but less than 2000 tons. The Engineer must approve the location of the test section. During construction of the test section, the WMA must meet all ADOT construction acceptance specifications and the test section must show successful performance after construction.
5. Requests to be included on the "Approved Warm Mix Asphalt (WMA) Technologies List" must be accompanied with the required documentation, and shall be submitted in electronic format (pdf) to the Pavement Materials Testing Engineer at "WMA@azdot.gov."
6. ADOT Materials Group will make the final decision on the approval of WMA technologies.

Approved WMA Technologies:

1. Maxam Equipment (AQUABlack Warm Mix Asphalt)
<http://maxamequipment.com/AQUABlackWMA.htm>
2. PQ Corporation (Advera WMA)
<http://www.adverawma.com/>
3. MeadWestvaco Asphalt Innovations (Evotherm 3G)
<http://www.evotherm.com>
4. Sasol Wax North America Corporation (Sasobit)
<http://www.sasobit.com>
5. Ingevity (Evotherm P25)
<http://www.ingevity.com>