

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE Pavement Design **OFFICE** Materials and Research
Forest Park, Georgia
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FROM Georgene M. Geary, P.E., State Materials and Research Engineer

TO Ben Buchan, P.E., Director of Engineering
Gerald Ross, P.E., Deputy Commissioner/Chief Engineer

SUBJECT **Guidelines for Superpave and Other Mix Types Selection – Revision**

The Office of Materials and Research recommends that the Superpave Mix and Other Mix Types Selection guidelines dated January 30, 2006 be revised. This revision to the Guidelines corresponds with current construction practice and specifications, provides recommended lift thicknesses and includes the standard pay items from the November 2007 “Most frequently used pay-items” document.

These guidelines supersede the current guidelines date January 30, 2006 and the November 7, 2007 document. All changes and recommendations have been incorporated into the attached two-page “Criteria for Use of Asphaltic Concrete Layer and Mix Types” dated March 18, 2011 which can be used immediately, but, will be incorporated into Chapter 15 of the Design Policy Manual shortly as part of upcoming revisions.

If you have any questions, please contact Peter Wu at 404-608-4840 or J.T. Rabun at 404-608-4740.

BB:GMG:PW:JTR:aj/sh

Attachment: Criteria for Use of Asphaltic Concrete Layer and Mix Types

Recommended: 
Ben Buchan, P.E., Director of Engineering

Approved: 
Gerald Ross, P.E., Chief Engineer

CRITERIA FOR USE OF ASPHALTIC CONCRETE LAYER AND MIX TYPES
(Using Base Year Two-Way ADT)

	PAY ITEM	Base Year Two-Way ADT	MIX TYPE	LAYER THICKNESS AND/OR SPREAD RATE			REMARKS
				(Minimum)	USE	(Maximum)	
Drainage	400-3206	>25,000	12.5 mm OGFC	85 lbs/yd ² , (47 kg/m ²)	90 lbs/yd ² , (50 kg/m ²)	95 lbs/yd ² , (53 kg/m ²)	For High ADT State Routes with speed limits ≥ 55 mph.
	400-3624	N/A	12.5 mm PEM	110 lbs/yd ² , (60 kg/m ²)	135 lbs/yd ² , (75 kg/m ²)	165 lbs/yd ² , (90 kg/m ²)	For Interstate Routes.
Surface**	402-3814	<800	4.75 mm	3/8", 85 lbs/yd ² , (19 mm, 45 kg/m ²)	7/8", 90 lbs/yd ² , (22 mm, 50 kg/m ²)	1-1/8", 125 lbs/yd ² , (28 mm, 70 kg/m ²)	For State and Off-system Routes with low truck traffic volume (< 100 trucks per day).
	402-3816	800 to 1000					
	402-3100	<800	9.5 mm Type I Superpave	7/8", 90 lbs/yd ² , (22 mm, 50 kg/m ²)	1-1/4", 135 lbs/yd ² , (32 mm, 75 kg/m ²)	1-1/2", 135 lbs/yd ² , (32 mm, 75 kg/m ²)	For State and Off-system Routes * For Off-system Routes only USE: 1-1/8", 125 lbs/yd ² , (28 mm, 70 kg/m ²)
	402-3101	800 to 2000					
	402-3102	2000 to 4000	9.5 mm Type II Superpave	1-1/8", 125 lbs/yd ² , (28 mm, 70 kg/m ²)	1-3/4", 135 lbs/yd ² , (32 mm, 75 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	For State and Off-system Routes.
	402-3103	4000 to 10,000					
	402-3130	10,000 to 25,000	12.5 mm Superpave	1-3/8", 150 lbs/yd ² , (35mm, 80 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	2-1/2", 275 lbs/yd ² , (64 mm, 150 kg/m ²)	For State Routes and for shoulders of Interstate Routes.
	402-4510	25,000 to 50,000	12.5 mm Superpave w/polymer Modified AC	1-3/8", 150 lbs/yd ² , (35mm, 80 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	2-1/2", 275 lbs/yd ² , (64 mm, 150 kg/m ²)	For High ADT State Routes, all Interstate Routes; and all Interstate Ramps.
	402-3600	>50,000	12.5 mm SMA	1-3/8", 150 lbs/yd ² , (35mm, 80 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	3", 330 lbs/yd ² , (75mm, 180 kg/m ²)	For Interstate Routes and for State Routes when recommended by OMR. OMR may recommend 2-inch lift 12.5 mm SMA on Interstates.

**CRITERIA FOR USE OF ASPHALTIC CONCRETE LAYER AND MIX TYPES
(Using Base Year Two-Way ADT)**

	PAY ITEM	Base Year Two-Way ADT	MIX TYPE	LAYER THICKNESS AND/OR SPREAD RATE Customary, (Metric)			REMARKS
				(Minimum)	USE	(Maximum)	
Intermediate	402-3190	N/A	19 mm Superpave	1-¾", 190 lbs/yd ² , (44 mm, 105 kg/m ²)	2", 220 lbs/yd ² , (50 mm, 120 kg/m ²)	3", 330 lbs/yd ² , (75mm, 180 kg/m ²)	All Routes. 2 inches is optimum for smoothness, if additional structure is required use 25 mm.
							Trench widening which may be left exposed as travel surface Thickness = 4", 440 lbs/yd ² , (100 mm, 240 kg/m ²) Trench widening Thickness = 6", 660 lbs/yd ² , (150 mm, 360 kg/m ²)
Base	402-3121	N/A	25 mm Superpave	2-½", 275 lbs/yd ² , (64 mm, 150 kg/m ²)	3", 330 lbs/yd ² , (75mm, 180 kg/m ²)	4", 440 lbs/yd ² , (100 mm, 240 kg/m ²)	All Routes. 3 or 4 inches is a standard lift thickness.
							Trench widening Thickness = 6", 660 lbs/yd ² , (150 mm, 360 kg/m ²)

Note: Mix type to be used for patching and leveling will depend on thickness to be placed according to Section 400.3.03.B.4, Table 3 in Shelf Special Provision.

**Use of the shown pay items for Surface mixes will comply with GDOT Policy 5520-8 in relation to the allowed aggregate Group/Blend for friction and ADT

Mixes Used on an Infrequent Basis (Contact OMR for Guidance before using)

PAY ITEM	Base Year ADT	MIX TYPE	LAYER THICKNESS AND/OR SPREAD RATE Customary, (Metric)			REMARKS
			(Minimum)	USE	(Maximum)	
400-3150	N/A	9.5 mm OGFC	55 lbs/yd ² , (30 kg/m ²)	60 lbs/yd ² , (33 kg/m ²)	65 lbs/yd ² , (36 kg/m ²)	Limited use on State Routes to address specific drainage problems. State Routes with speed limits ≥ 55 mph.
400-3600	10,000 to 50,000	9.5 mm SMA	1-⅛", 125 lbs/yd ² , (28 mm, 70 kg/m ²)	1-¾", 135 lbs/yd ² , (32 mm, 75 kg/m ²)	1-½", 165 lbs/yd ² , (40 mm, 90 kg/m ²)	May be used as alternate surface on State Routes <i>only</i> when recommended by OMR.
402-XXXX						
402-3606	N/A	19 mm SMA	1-¾", 190 lbs/yd ² , (44 mm, 105 kg/m ²)	2", 220 lbs/yd ² , (50 mm, 120 kg/m ²)	3", 330 lbs/yd ² , (75mm, 180 kg/m ²)	Only for special circumstances, with concurrence of OMR.