Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 76-28 OK) Mat'l. Code: asco010
(Material Full Name and Material Code)

Insoluble ID: I1
(Design Type and Design Type ID)

Glover & Associates Inc. P/S # m00745
(Producer/Supplier Name and Producer/Supplier Code)

S4pv0261700800
(Mix ID)

Glover & Assoc. Asphalt Co. (Muskogee) PLANT ID # m00745-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	APAC-Central #017 (Okay, OK) P/S # m001337302	22
3/8" Chips	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	18
Man. Sand	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	20
Scrns.	APAC-Central #017 (Okay, OK) P/S # m001337302	15
Drag Sand	Mine Chat @ Tri City Area P/S # MineChat	15
Sand	Muskogee Sand - West Plant (Muskogee, OK) P/S # m007067309	10

Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, Lion Oil Co. (Muskogee, OK), m00511
(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Requires Form 93-E0 signed by the Department for production use.
-Oklahoma D.O.T. Materials-

Sieve Size / Producer/Supplier:	APAC-Central #017 (Okay, OK) P/S # m001337302	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	APAC-Central #017 (Okay, OK) P/S # m001337302	Mine Chat @ Tri City Area P/S # MineChat	Muskogee Sand - West Plant (Muskogee, OK) P/S # m007067309			Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
	#67 Rock	3/8" Chips	Man. Sand	Scrns.	Drag Sand	Sand							
3/4 in (19 mm)	100	100	100	100	100	100			100	**100**	100	100	0
1/2 in (12.5 mm)	58	100	100	100	100	100			91	**91**	84	98	7
3/8 in (9.5 mm)	25	98	98	100	100	100			83	**83**	76	90	7
#4 (4.75 mm)	3	37	94	95	94	99			64	**64**	57	71	7
#8 (2.36 mm)	2	7	75	55	62	94			44	**44**	39	49	5
#16 (1.18 mm)	2	4	49	33	35	81			29	**29**	25	33	4
#30 (.600 mm)	2	4	31	22	20	57			19	**19**	15	23	4
#50 (.300 mm)	2	3	19	16	13	13			10	**10**	6	14	4
#100 (.150 mm)	2	3	12	12	5	1			6	**6**	3	9	3
#200 (.075 mm)	1.4	2.9	9.2	8.8	2.4	1.0			4.5	**4.5**	2.5	6.5	2
AC Content %									5.9	**5.9**	5.5	6.3	0.4

	°F (°C)	Required
Mix temperature @ discharge from mixer:	325 (163)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	305 (152)	
Laboratory mixing temperature:	325 (163)	
Laboratory compaction temperature:	300 (149)	

Tests on Asphalt Cement	Found
Specific Gravity @ 77 ° F	1.0100

Requires Form 93-E0 signed by the Department for production use.
-Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)	# Gyr.	% Density of Gmm	% Density Required
Nini	8	87.3	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates		Required		Units
Durability Index	59	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	41.8	40	min.	%
LA Abrasion	27	40	max.	%
Micro-Deval	18.4	25	max.	%
Permeability	7.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	66	50	min.	%
IOC	0.65			%
Gse	2.625			
Gsb	2.536			
Specimen Weight	4680			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
5.3	2.277	2.420	94.1	Design / Field	15.0	Design / Field	60.7	
5.8	2.299	2.402	95.7	96.0 / 94.5 - 97.4	14.6	14.5 / 14.0	70.5	72 - 77
6.3	2.313	2.385	97.0		14.5		79.3	

Dust Prop.	Dust Prop. Req.
1.1	0.6 - 1.6
1.0	
0.9	

ITS (PSI) 108.5 75 min.
TSR 0.84 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 105.5 @ 5.9 % Asphalt Cement

Hamburg Rut Test Depth (mm) 4.19 12.50 max. @ 20,000 cycles

MEETS SPECIFICATION REQUIREMENTS PER SPECIAL PROVISION 708-26(a-f) 09

Comments:

Last Modified By: Williams, Bobby Ray bwilli01
(User Name and User ID)

Date: 4/28/2017
(mm/dd/yyyy)