



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 64-22 OK) Mat'l. Code: asco012
 (Material Full Name and Material Code)

APAC Central - (Arkholo S & G Asphalt) P/S # m00553
 (Producer/Supplier Name and Producer/Supplier Code)

APAC-Central #04037 (Portable-Zeb, OK) - 300TPH PLANT ID # m00553-01
 (Plant Name and Plant ID)

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

S4qc0021500900
 (Mix ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	APAC-Central #017 (Okay, OK) P/S # m001337302	20
3/8" Chips	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	20
Man. Sand	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	35
Scrms.	APAC-Central #017 (Okay, OK) P/S # m001337302	15
Sand	APAC - Arkholo Muskogee Sand Plant P/S # m001315103	10
Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Lion Oil Co. (Muskogee, OK), m00511 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	#67 Rock	3/8" Chips	Man. Sand	Scrms.	Sand	Comb. Agg.	%			
							JMF	Min.	Max.	Tol. (±)
3/4 in (19 mm)	100	100	100	100	100	100	100	100	100	0
1/2 in (12.5 mm)	70	100	100	100	100	94	94	87	100	7
3/8 in (9.5 mm)	34	93	100	100	100	85	85	78	92	7
#4 (4.75 mm)	4	29	97	92	99	64	64	57	71	7
#8 (2.36 mm)	4	6	75	62	92	47	47	42	52	5
#16 (1.18 mm)	3	4	49	39	75	32	32	28	36	4
#30 (.600 mm)	3	3	33	27	46	21	21	17	25	4
#50 (.300 mm)	2	3	21	22	9	13	13	9	17	4
#100 (.150 mm)	2	2	12	17	1	8	8	5	11	3
#200 (.075 mm)	2.0	2.1	8.0	11.0	0.5	5.3	5.3	3.3	7.3	2
AC Content %						5.5	5.5	5.1	5.9	0.4

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

Mix temperature @ discharge from mixer: 305 (152) ± 20 °F (± 10 °C) **Required**
 Optimum roadway compaction temperature: 290 (143)
 Laboratory mixing temperature: 325 (163)
 Laboratory compaction temperature: 300 (149)

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

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Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density	
		of Gmm	% Density Required
Nini	6	86.1	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	40 min.	%
F.A.A. %U	N/A	%
Flat and Elongated	0 10 max.	%
Fractured Faces	100/100 85/80 min.	%
Insoluble Residue	34.4 30 min.	%
LA Abrasion	25.3 40 max.	%
Micro-Deval	19.7 N/A	%
Permeability	0 12.5 max.	10 ⁻⁵ cm/s
Sand Equivalent	75 40 min.	%
IOC	0.52	%
Gse	2.667	
Gsb	2.598	
Specimen Weight	4770	g

%AC	Gmb	Gmm	% Density		% VMA	% VMA Required	% VFA	% VFA Required
			of Gmm	% Density Required				
5.0	2.330	2.465	94.5	Design / Field	14.8	Design / Field	62.8	72 - 77
5.5	2.347	2.446	96.0	96.0 / 94.5 - 97.4	14.6	14.5 / 14.0	72.6	
6.0	2.365	2.428	97.4		14.4		81.9	

Dust Prop.
 1.3 **Dust Prop. Req.**
 1.2 0.6 - 1.6
 1.0

ITS (PSI) 121.1 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 107.6 @ 5.5 % Asphalt Cement

Hamburg Rut Test Depth (mm) 7.95 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Schratwieser, Edward P. eschratw
 (User Name and User ID)

Date: 12/9/2015
 (mm/dd/yyyy)