Version: V03.50

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 64-22 OK) Mat'l. Code: asco009
(Material Full Name and Material Code)

Binder ID: B1
(Design Type and Design Type ID)

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

S3pv0261800600
(Mix ID)

APAC - Central (Mcalester, OK) Formerly Glover PLANT ID # m00553-07
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	30
3/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	20
Scrns.	Dolese Co (Hartshorne, OK) P/S # m002756101	35
Sand	Muskogee Sand - West Plant (Muskogee, OK) P/S # m007067309	15

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)

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

Producer/Supplier:	Dolese Co (Hartshorne, OK) P/S # m002756101	Dolese Co (Hartshorne, OK) P/S # m002756101	Dolese Co (Hartshorne, OK) P/S # m002756101	Muskogee Sand - West Plant (Muskogee, OK) P/S # m007067309									
Sieve Size	3/4" Chips	3/8" Chips	Scrns.	Sand					Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
1 in (25 mm)	100	100	100	100					100	100	100	100	0
3/4 in (19 mm)	100	100	100	100					100	100	93	100	7
1/2 in (12.5 mm)	50	100	100	100					85	85	78	92	7
3/8 in (9.5 mm)	8	96	100	100					72	72	65	79	7
#4 (4.75 mm)	1	15	98	99					52	52	45	59	7
#8 (2.36 mm)	1	4	68	96					39	39	34	44	5
#16 (1.18 mm)	1	3	46	88					30	30	26	34	4
#30 (.600 mm)	1	2	32	72					23	23	19	27	4
#50 (.300 mm)	1	2	22	37					14	14	10	18	4
#100 (.150 mm)	1	2	17	2					7	7	4	10	3
#200 (.075 mm)	1.3	1.4	13.1	1.0					5.4	5.4	3.4	7.4	2
AC Content %									4.8	4.8	4.4	5.2	0.4

	°F (°C)	Required
Mix temperature @ discharge from mixer:	305 (152)	± 20 °F (± 10 °C)
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	88.2	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Contabro		N/A		%
Durability Index	78	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue		N/A		%
LA Abrasion	22	40	max.	%
Micro-Deval	12.1	N/A		%
Permeability	6.5	12.5	max.	10^{-5}cm/s
Sand Equivalent	65	40	min.	%
IOC	0.47			%
Gse	2.652			
Gsb	2.603			
Specimen Weight	4800			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.3	2.336	2.479	94.2		14.1		58.9	
4.8	2.360	2.460	95.9	96.0 / 94.5 - 97.4	13.7	13.5 / 13.0	70.1	70 - 75
5.3	2.384	2.442	97.6		13.3		82.0	

Dust Prop.
1.5
1.3
1.2

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 144.3 N/A min.

TSR 0.87 0.80 / 0.75 min. (Design / Field)

Compacted Wt. (lbs/sy/1" thick) = 108.2 @ 4.8 % Asphalt Cement

Hamburg Rut Test Depth (mm) 3.95 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 7/20/2018
(mm/dd/yyyy)