Version: V03.40

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 - Recycled ID: B2
(Design Type and Design Type ID)

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

S3qc0021590600
(Mix ID)

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

Aggregate	Producer/Supplier	% USED
#67 Rock	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	25
3/8" Chips	APAC-Central #017 Okay, OK P/S # m001337302	20
Man. Sand	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	15
Scrns.	APAC-Central #017 Okay, OK P/S # m001337302	15
Sand	Arkhola S & G (Muskogee, OK) P/S # m001315103	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	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:	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	APAC-Central #017 Okay, OK P/S # m001337302	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	APAC-Central #017 Okay, OK P/S # m001337302	Arkhola S & G (Muskogee, OK) P/S # m001315103	Contractor / Project Site P/S # Contractor							
Sieve Size	#67 Rock	3/8" Chips	Man. Sand	Scrns.	Sand	Fine R.A.P.			Comb. Agg.	*JMF*	*Min.*	*Max.*	*% Tol. (±)*
1 in (25 mm)	100	100	100	100	100	100			100	***100***	*100*	*100*	*0*
3/4 in (19 mm)	100	100	100	100	100	100			100	***100***	*93*	*100*	*7*
1/2 in (12.5 mm)	61	100	100	100	100	98			90	***90***	*83*	*97*	*7*
3/8 in (9.5 mm)	35	100	100	100	100	92			83	***83***	*76*	*90*	*7*
#4 (4.75 mm)	6	19	98	87	99	69			53	***53***	*46*	*60*	*7*
#8 (2.36 mm)	3	7	75	63	92	47			39	***39***	*34*	*44*	*5*
#16 (1.18 mm)	3	5	46	41	75	34			27	***27***	*23*	*31*	*4*
#30 (.600 mm)	3	4	30	28	41	25			18	***18***	*14*	*22*	*4*
#50 (.300 mm)	2	4	19	20	9	17			11	***11***	*7*	*15*	*4*
#100 (.150 mm)	2	3	14	14	2	12			7	***7***	*4*	*10*	*3*
#200 (.075 mm)	2.0	2.5	9.0	10.0	1.0	9.5			5.4	***5.4***	*3.4*	*7.4*	*2*
AC Content %						4.5			5.0	***5.0***	*4.6*	*5.4*	*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	87.9	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	51	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	1	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	29.1	N/A		%
LA Abrasion	25.3	40	max.	%
Micro-Deval	19.7	N/A		%
Permeability	4.8	12.5	max.	10^{-5}cm/s
Sand Equivalent	68	40	min.	%
IOC	0.53			%
Gse	2.639			
Gsb	2.575			
Specimen Weight	4725			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.5	2.316	2.460	94.1	Design / Field	14.1	Design / Field	58.2	
5.0	2.345	2.442	96.0	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0	70.4	70 - 75
5.5	2.385	2.424	98.4		12.5		87.2	

Dust Prop.	Dust Prop. Req.
1.5	
1.3	0.6 - 1.6
1.2	

ITS (PSI)	166.5	N/A min.		
TSR	0.83	0.80 / 0.75 min. (Design / Field)		
Compacted Wt. (lbs/sy/1" thick) =	107.4	@	5.0	% Asphalt Cement
			4.3	% New Asphalt Cement

Hamburg Rut Test Depth (mm) 3.03 #N/A

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

Comments:

Last Modified By: Vivanco, David dvivanco
(User Name and User ID)

Date: 6/14/2018
(mm/dd/yyyy)