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)

S3c00931891100
(Mix ID)

APAC - Central (Muskogee, OK) Formerly Glover PLANT ID # m00553-09
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	30
3/8" Chips	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	20
Scrns.	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	15
Sand	Arkhola S & G (Muskogee, OK) P/S # m001315103	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25

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 #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	APAC-Central #016 (Roberts Quarry @ Zeb, OK) P/S # m001301102	Arkhola S & G (Muskogee, OK) P/S # m001315103	Contractor / Project Site P/S # Contractor								
Sieve Size	#67 Rock	3/8" Chips	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	0
3/4 in (19 mm)	100	100	100	100	100				100	100	93	100	7
1/2 in (12.5 mm)	63	100	100	100	92				87	87	80	94	7
3/8 in (9.5 mm)	28	98	100	100	81				73	73	66	80	7
#4 (4.75 mm)	4	34	97	98	59				47	47	40	54	7
#8 (2.36 mm)	3	7	69	91	46				33	33	28	38	5
#16 (1.18 mm)	3	4	44	75	36				25	25	21	29	4
#30 (.600 mm)	2	4	27	49	29				18	18	14	22	4
#50 (.300 mm)	2	4	15	14	22				11	11	7	15	4
#100 (.150 mm)	2	3	7	2	15				6	6	3	9	3
#200 (.075 mm)	1.6	2.6	4.4	0.7	9.6				4.1	4.1	2.1	6.1	2
AC Content %					5.1				4.9	4.9	4.5	5.3	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	87.8	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	60	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	5.5	N/A		%
LA Abrasion	27	40	max.	%
Micro-Deval	19.7	N/A		%
Permeability	0.6	12.5	max.	10^{-5}cm/s
Sand Equivalent	87	40	min.	%
IOC	0.25			%
Gse	2.705			
Gsb	2.643			
Specimen Weight	4885			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.3	2.381	2.523	94.4	Design / Field	13.8	Design / Field	59.4	
4.8	2.399	2.503	95.8	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	69.1	70 - 75
5.3	2.417	2.484	97.3		13.4		79.9	

Dust Prop.	Dust Prop. Req.
1.2	0.6 - 1.6
1.0	
0.9	

ITS (PSI) 146 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.0 @ 4.9 % Asphalt Cement
3.6 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.01 #N/A

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

Comments: Similar to S3pv0261500400 (Plant ID Change)(*P/S Change: Glover to APAC*)(AC Source Change)

Last Modified By: McComack, Hunter J. hmccomac
(User Name and User ID)

Date: 6/13/2018
(mm/dd/yyyy)