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 ID: B1
(Design Type and Design Type ID)

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

S3c00931801300
(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	40
3/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	10
Scrns.	Dolese Co (Hartshorne, OK) P/S # m002756101	35
Sand (Unlisted Source)	Arkansas River Sand (Spiro, OK)	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-

Sieve Size	3/4" Chips	3/8" Chips	Scrns.	Sand (Unlisted Source)					Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
Producer/Supplier:	Dolese Co (Hartshorne, OK) P/S # m002756101	Dolese Co (Hartshorne, OK) P/S # m002756101	Dolese Co (Hartshorne, OK) P/S # m002756101	Arkansas River Sand (Spiro, OK)									
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)	64	100	100	100					86	**86**	79	93	7
3/8 in (9.5 mm)	37	95	100	100					74	**74**	67	81	7
#4 (4.75 mm)	5	25	94	96					52	**52**	45	59	7
#8 (2.36 mm)	4	6	64	94					39	**39**	34	44	5
#16 (1.18 mm)	3	3	41	91					30	**30**	26	34	4
#30 (.600 mm)	3	3	26	79					22	**22**	18	26	4
#50 (.300 mm)	3	2	19	31					13	**13**	9	17	4
#100 (.150 mm)	2	1	14	4					6	**6**	3	9	3
#200 (.075 mm)	1.7	1.2	10.1	0.6					4.4	**4.4**	2.4	6.4	2
AC Content %									4.7	**4.7**	4.3	5.1	0.4

	°F (°C)	Required
Mix temperature @ discharge from mixer:		± 20 °F (± 10 °C)
Optimum roadway compaction temperature:		
Laboratory mixing temperature:		
Laboratory compaction temperature:		

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	89.2	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	66	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated		10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	15.4	N/A		%
LA Abrasion	19.7	40	max.	%
Micro-Deval	14.1	N/A		%
Permeability	4.1	12.5	max.	10^{-5}cm/s
Sand Equivalent	59	40	min.	%
IOC	0.29			%
Gse	2.603			
Gsb	2.565			
Specimen Weight	4650			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.2	2.299	2.441	94.2	96.0 / 94.5 - 97.4	14.1	13.5 / 13.0	58.9	70 - 75
4.7	2.325	2.423	96.0		13.6		70.6	
5.2	2.349	2.406	97.6		13.2		81.8	

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

ITS (PSI) 156.6 N/A min.
TSR 0.91 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 106.6 @ 4.7 % Asphalt Cement

Hamburg Rut Test Depth (mm) 1.86 12.50 max. @ 10,000 cycles

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

Comments: Similar to S3c00931300200 (Plant and Producer ID Change)(*P/S Change: Glover to APAC*)

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

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