Version: V03.40

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)

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

Haskell Lemon Const Co (Asphalt) P/S # m00428
(Producer/Supplier Name and Producer/Supplier Code)

S4qc0131494100
(Mix ID)

Haskell Lemon (Portable)- 400TPH PLANT ID # m00428-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Western Aggregates, LLC (Carnegie, OK) P/S # m006583803	17
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	36
Scrns.	Western Aggregates, LLC (Carnegie, OK) P/S # m006583803	12
Sand (Unlisted Source)	General Materials Inc.(MacArthur Pit)(OKC,OK)	10
Coarse 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-

Sieve Size	Western Aggregates, LLC (Carnegie, OK) P/S # m006583803	Martin-Marietta (Snyder, OK) P/S # m002323802	Western Aggregates, LLC (Carnegie, OK) P/S # m006583803	General Materials Inc.(MacArthur Pit)(OKC,OK)	Contractor / Project Site P/S # Contractor				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
	5/8" Chips	C-33 Scrns.	Scrns.	Sand (Unlisted Source)	Coarse R.A.P.								
3/4 in (19 mm)	100	100	100	100	100				100	100	100	100	0
1/2 in (12.5 mm)	44	100	99	100	98				90	90	83	97	7
3/8 in (9.5 mm)	7	100	97	100	80				79	79	72	86	7
#4 (4.75 mm)	2	95	72	100	33				61	61	54	68	7
#8 (2.36 mm)	2	70	41	99	23				46	46	41	51	5
#16 (1.18 mm)	2	47	24	99	19				35	35	31	39	4
#30 (.600 mm)	2	29	16	94	16				26	26	22	30	4
#50 (.300 mm)	2	15	12	66	12				17	17	13	21	4
#100 (.150 mm)	1	7	9	10	7				7	7	4	10	3
#200 (.075 mm)	1.2	4.1	7.9	1.2	4.3				3.8	3.8	1.8	5.8	2
AC Content %					3.6				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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-Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	6	90.1	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	83	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	25.3	40	max.	%
Micro-Deval	16.4	N/A		%
Permeability	11.2	12.5	max.	10^{-5}cm/s
Sand Equivalent	86	40	min.	%
IOC	0.15			%
Gse	2.663			
Gsb	2.639			
Specimen Weight	4820			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	2.353	2.488	94.6		14.7		63.3	
4.8	2.370	2.469	96.0	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	72.4	72 - 77
5.3	2.389	2.450	97.5		14.3		82.5	

Dust Prop.	Dust Prop. Req.
1.0	
0.8	0.6 - 1.6
0.8	

ITS (PSI) 108.1 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 108.6 @ 4.8 % Asphalt Cement
3.9 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 6.04 #N/A

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

Comments:

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

Date: 8/28/2018
(mm/dd/yyyy)