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)

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

S3qc0131691200
(Mix ID)

Haskell Lemon (West OKC, OK) - 450TPH PLANT ID # m00428-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
1" Rock	Dolese Co (Davis, OK) P/S # m002745002	25
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	12
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	28
Sand (Unlisted Source)	General Materials (MacArther 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	Dolese Co (Davis, OK) P/S # m002745002	Martin-Marietta (Davis, OK) P/S # m002285005	Martin-Marietta (Snyder, OK) P/S # m002323802	General Materials (MacArther Pit) OKC,OK	Contractor / Project Site P/S # Contractor				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)	91	100	100	100	100				98	98	91	100	7
1/2 in (12.5 mm)	57	100	100	100	99				89	89	82	96	7
3/8 in (9.5 mm)	37	100	100	100	90				82	82	75	89	7
#4 (4.75 mm)	9	94	97	100	35				59	59	52	66	7
#8 (2.36 mm)	3	57	76	99	28				46	46	41	51	5
#16 (1.18 mm)	2	31	50	96	23				34	34	30	38	4
#30 (.600 mm)	2	18	32	88	20				25	25	21	29	4
#50 (.300 mm)	2	10	17	66	16				17	17	13	21	4
#100 (.150 mm)	2	6	7	24	9				8	8	5	11	3
#200 (.075 mm)	1.6	4.2	3.5	3.7	5.2				3.6	3.6	1.6	5.6	2
AC Content %					3.6				4.3	4.3	3.9	4.7	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	90.4	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	75	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	27	40	max.	%
Micro-Deval	16.2	N/A		%
Permeability	3.8	12.5	max.	10^{-5}cm/s
Sand Equivalent	88	40	min.	%
IOC	0.29			%
Gse	2.663			
Gsb	2.643			
Specimen Weight	4855			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
3.8	2.367	2.507	94.4		13.8		59.4	
4.3	2.389	2.488	96.0	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0	70.4	70 - 75
4.8	2.407	2.469	97.5		13.3		81.2	

Dust Prop.	Dust Prop. Req.
1.0	0.6 - 1.6
0.9	
0.8	

ITS (PSI) 100.4 N/A min.
TSR 0.89 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.4 @ 4.3 % Asphalt Cement
3.4 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 3.72 #N/A

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

Comments:

Last Modified By: Suitor, Kevin ksuitor
(User Name and User ID)

Date: 1/23/2018
(mm/dd/yyyy)