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)

S3qc0381490300
(Mix ID)

Haskell Lemon (Norman, OK) - 400TPH PLANT ID # m00428-05
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
1" Rock	Martin-Marietta (Davis, OK) P/S # m002285005	25
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	14
Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	16
Sand (Unlisted Source)	General Materials Inc. (MacAurthur Pit) (OKC,OK)	10
Coarse R.A.P.	Contractor / Project Site P/S # Contractor	35

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)

Sieve Size	Producer/Supplier: Martin-Marietta (Davis, OK) P/S # m002285005 — 1" Rock	Martin-Marietta (Davis, OK) P/S # m002285005 — Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008 — Man. Sand	General Materials Inc. (MacAurthur Pit) (OKC,OK) — Sand (Unlisted Source)	Contractor / Project Site P/S # Contractor — Coarse 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)	94	100	100	100	100				99	**99**	92	100	7
1/2 in (12.5 mm)	48	100	100	100	93				85	**85**	78	92	7
3/8 in (9.5 mm)	23	100	100	100	76				72	**72**	65	79	7
#4 (4.75 mm)	2	89	99	100	36				51	**51**	44	58	7
#8 (2.36 mm)	1	52	74	99	25				38	**38**	33	43	5
#16 (1.18 mm)	1	29	44	98	20				28	**28**	24	32	4
#30 (.600 mm)	1	18	25	88	17				22	**22**	18	26	4
#50 (.300 mm)	1	11	13	58	13				14	**14**	10	18	4
#100 (.150 mm)	1	8	6	15	8				7	**7**	4	10	3
#200 (.075 mm)	0.7	5.1	3.0	1.3	4.4				3.0	**3.0**	1.0	5.0	2
AC Content %					3.9				4.3	**4.3**	3.9	4.7	0.4

Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-

	°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

Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)	# Gyr.	% Density of Gmm	% Density Required
Nini	6	89.4	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	10.8	N/A		%
Permeability	11.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	82	40	min.	%
IOC	0.28			%
Gse	2.697			
Gsb	2.667			
Specimen Weight	4910			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	2.390	2.536	94.2	96.0 / 94.5 - 97.4	13.8	13.5 / 13.0	58.0	70 - 75
4.3	2.412	2.516	95.9		13.5		69.6	
4.8	2.431	2.497	97.4		13.2		80.3	

Dust Prop.	Dust Prop. Req.
0.9	0.6 - 1.6
0.8	
0.7	

ITS (PSI) 156.2 N/A min.
TSR 0.88 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.7 @ 4.3 % Asphalt Cement
2.9 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.58 12.50 max. @ 10,000 cycles

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

Comments: TEMPORARY CONSTRUCTION ONLY

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

Date: 6/15/2018
(mm/dd/yyyy)