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)

S4qc0381490400
(Mix ID)

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

Aggregate	Producer/Supplier	% USED
5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	21
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	22
Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	12
Sand (Unlisted Source)	GMI (MacArthur 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)

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

Sieve Size	Producer/Supplier: Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Martin-Marietta (Davis, OK) P/S # m002285005	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	GMI (MacArthur Pit)(OKC,OK)	Contractor / Project Site P/S # Contractor				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
	5/8" Chips	Man. Sand	Man. Sand	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)	77	100	100	100	93				93	**93**	86	100	7
3/8 in (9.5 mm)	52	100	100	100	76				82	**82**	75	89	7
#4 (4.75 mm)	13	89	99	100	36				57	**57**	50	64	7
#8 (2.36 mm)	4	52	74	99	25				40	**40**	35	45	5
#16 (1.18 mm)	3	29	44	98	20				29	**29**	25	33	4
#30 (.600 mm)	3	18	25	88	17				22	**22**	18	26	4
#50 (.300 mm)	2	11	13	58	13				15	**15**	11	19	4
#100 (.150 mm)	2	8	6	15	8				7	**7**	4	10	3
#200 (.075 mm)	1.6	5.1	3.0	1.3	4.4				3.5	**3.5**	1.5	5.5	2
AC Content %					3.9				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

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	89.0	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	6.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	75	40	min.	%
IOC	0.63			%
Gse	2.700			
Gsb	2.660			
Specimen Weight	4875			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.3	2.369	2.519	94.0	Design / Field	14.8	Design / Field	59.5	
4.8	2.388	2.499	95.6	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	69.7	72 - 77
5.3	2.408	2.480	97.1		14.3		79.7	

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

ITS (PSI)	138.5	N/A min.	
TSR	0.87	0.80 / 0.75 min. (Design / Field)	
Compacted Wt. (lbs/sy/1" thick) =	109.8	@ 4.9	% Asphalt Cement
		3.5	% New Asphalt Cement

Hamburg Rut Test Depth (mm) 3.27 #N/A

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)