



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 64-22 OK) Mat'l. Code: asco012

Binder - Recycled ID: B2

(Material Full Name and Material Code)

(Design Type and Design Type ID)

Haskell Lemon Const Co (Asphalt) P/S # m00428

WS4qc0381570300

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

Haskell Lemon (Shawnee, OK) - 300TPH PLANT ID # m00428-06

(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	20
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	25
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	10
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	10
Coarse R.A.P.	Contractor / Project Site P/S # Contractor	35
Warm Mix Asphalt (WMA) Technology: TEREX (Foaming Process) qual028 Terex Roadbuilding m00801 (Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		
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:						Comb. Agg.	Requirements			
	5/8" Chips	C-33 Scrns.	Man. Sand	Sand	Coarse R.A.P.	JMF		Min.	Max.	Tol. (%)	
3/4 in (19 mm)	100	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	91	100	100	100	90	95	95	88	100	7	
3/8 in (9.5 mm)	60	100	100	100	78	84	84	77	91	7	
#4 (4.75 mm)	5	99	93	100	32	56	56	49	63	7	
#8 (2.36 mm)	3	80	56	99	25	45	45	40	50	5	
#16 (1.18 mm)	3	48	31	98	19	32	32	28	36	4	
#30 (.600 mm)	2	25	19	94	16	24	24	20	28	4	
#50 (.300 mm)	2	8	11	74	13	15	15	11	19	4	
#100 (.150 mm)	1	3	7	25	8	7	7	4	10	3	
#200 (.075 mm)	1.0	1.6	4.0	1.3	6.9	3.5	3.5	1.5	5.5	2	
AC Content %					3.6	4.8	4.8	4.4	5.2	0.4	

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

Warm Mix Asphalt (WMA) Additive %

1.5

	*F (°C)	Required
Mix temperature @ discharge from mixer:	275 (135)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	260 (127)	
Laboratory mixing temperature:	325 (163)	
Laboratory compaction temperature:	300 (149)	

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	5.9	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	83	40 min. %
Pba	0.41	
IOC	0.14	%
Gse	2.692	
Gsb	2.663	
Specimen Weight	4865	g

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	90.5	85.5 - 91.5
Ndes	50		96.0

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.3	2.366	2.512	94.2	Design / Field	15.0	Design / Field	61.3
4.8	2.393	2.493	96.0	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	72.4
5.3	2.416	2.474	97.7		14.1		83.7

Dust Prop.	Dust Prop. Req.	ITS (PSI)	TSR	Compacted Wt. (lbs/sy/1" thick) =	@	% Asphalt Cement
0.9		106	0.81	109.7	4.8	
0.8	0.6 - 1.6				3.5	% New Asphalt Cement
0.7						

Hamburg Rut Test Depth (mm) 3.09 12.50 max. @ 10,000 cycles

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

Comments: TEMPORARY CONSTRUCTION ONLY

Last Modified By: Suito, Kevin ksuito (User Name and User ID)

Date: 3/13/2018 (mm/dd/yyyy)