



### 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)*

S3qc0131691100  
*(Mix ID)*

Haskell Lemon (East OKC, OK) - 350TPH PLANT ID # m00428-02  
*(Plant Name and Plant ID)*

Aggregate	Producer/Supplier	% USED
1" Rock	Dolese Co (Davis, OK) P/S # m002745002	30
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	16
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	18
Sand (Unlisted Source)	General Materials Inc.(63rd St. Plant) OKC	11
Coarse R.A.P.	Contractor / Project Site P/S # Contractor	25
<b>Asphalt Cement:</b> Asphaltic Cement Type PG 64-22 OK, acem003, Lion Oil Co. (Muskogee, OK), m00511 <i>(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)</i>		

Sieve Size	Producer/Supplier:						Comb. Agg.	Requirements			
	Dolese Co (Davis, OK) P/S # m002745002	Martin-Marietta (Davis, OK) P/S # m002285005	Martin-Marietta (Snyder, OK) P/S # m002323802	General Materials Inc.(63rd St. Plant) OKC	Contractor / Project Site P/S # Contractor			JMF	Min.	Max.	% Tol. (±)
1" Rock	100	100	100	100	100	100	100	100	100	0	
3/4 in (19 mm)	92	100	100	100	100	98	98	91	100	7	
1/2 in (12.5 mm)	59	100	100	100	98	87	87	80	94	7	
3/8 in (9.5 mm)	35	100	100	100	90	78	78	71	85	7	
#4 (4.75 mm)	5	95	95	99	52	58	58	51	65	7	
#8 (2.36 mm)	2	53	69	99	32	40	40	35	45	5	
#16 (1.18 mm)	1	27	42	96	25	29	29	25	33	4	
#30 (.600 mm)	1	15	25	87	21	22	22	18	26	4	
#50 (.300 mm)	1	8	11	67	16	15	15	11	19	4	
#100 (.150 mm)	1	4	3	24	9	6	6	3	9	3	
#200 (.075 mm)	0.8	2.9	0.5	1.0	7.5	2.8	2.8	0.8	4.8	2	
AC Content %					4.2	4.5	4.5	4.1	4.9	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

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Tests on Aggregates	Required	Units
Durability Index	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	6 12.5 max.	10 <sup>-5</sup> cm/s
Sand Equivalent	76 40 min.	%
IOC	0.11	%
Gse	2.670	
Gsb	2.638	
Specimen Weight	4860	g

Tests on Compressed Mixtures (@ Design AC)			
# Gyr.	% Density of Gmm		% Density Required
Nini	6	90.8	85.5 - 91.5
Ndes	50		96.0

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required	% VFA
			of Gmm	% Density Required			
3.8	2.361	2.513	94.0	Design / Field	13.9	Design / Field	56.8 % VFA Required
4.3	2.382	2.494	95.5	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	66.9 70 - 75
4.8	2.403	2.475	97.1		13.3		78.2

**Dust Prop.** 0.8 **Dust Prop. Req.** 0.6 - 1.6  
**ITS (PSI)** 121.5 N/A min.  
**TSR** 0.92 0.80 / 0.75 min. (Design / Field)  
**Compacted Wt. (lbs/sy/1" thick) =** 109.4 @ 4.5 % Asphalt Cement / 3.4 % New Asphalt Cement

**Hamburg Rut Test Depth (mm)** 4.81 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Williams, Bobby Ray bwilli01  
*(User Name and User ID)*

Date: 3/27/2017  
*(mm/dd/yyyy)*