Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S6 (PG 64-22 OK) Mat'l. Code: asco018
(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)

S6qc0131702200
(Mix ID)

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

Aggregate	Producer/Supplier	% USED
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	34
Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	17
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	14
Sand (Unlisted Source)	General Materials 63rd Plant	10
Fine 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-

Producer/Supplier:	Martin-Marietta (Davis, OK) P/S # m002285005	Martin-Marietta (Snyder, OK) P/S # m002323802	Martin-Marietta (Snyder, OK) P/S # m002323802	General Materials 63rd Plant	Contractor / Project Site P/S # Contractor								
Sieve Size	**Man. Sand**	**Scrns.**	**C-33 Scrns.**	**Sand (Unlisted Source)**	**Fine R.A.P.**				**Comb. Agg.**	***JMF***	***Min.***	***Max.***	***% Tol. (±)***
3/8 in (9.5 mm)	100	100	100	100	100				100	***100***	*100*	*100*	*0*
#4 (4.75 mm)	92	92	89	100	87				91	***91***	*84*	*98*	*7*
#8 (2.36 mm)	54	66	62	99	64				64	***64***	*59*	*69*	*5*
#16 (1.18 mm)	29	46	34	96	47				44	***44***	*40*	*48*	*4*
#30 (.600 mm)	17	32	20	86	36				32	***32***	*28*	*36*	*4*
#50 (.300 mm)	9	22	11	63	25				21	***21***	*17*	*25*	*4*
#100 (.150 mm)	5	15	5	19	15				11	***11***	*8*	*14*	*3*
#200 (.075 mm)	3.9	9.8	3.1	1.8	9.2				5.9	***5.9***	*3.9*	*7.9*	*2*
AC Content %					5.3				6.0	***6.0***	*5.6*	*6.4*	*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	88.7	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	79	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	0.2	12.5	max.	10^{-5}cm/s
Sand Equivalent	78	40	min.	%
IOC	0.21			%
Gse	2.671			
Gsb	2.629			
Specimen Weight	4740			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	
5.4	2.321	2.453	94.6	Design / Field	16.5	Design / Field	67.3	% VFA Required
5.9	2.327	2.435	95.6	96.0 / 94.5 - 97.4	16.7	16.5 / 16.0	73.7	75 - 79
6.4	2.352	2.417	97.3		16.3		83.4	

Dust Prop.
1.2
1.1
1.0

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 106.4 N/A min.
TSR 0.88 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 106.9 @ 6.0 % Asphalt Cement
4.7 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 7.68 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 7/19/2017
(mm/dd/yyyy)