



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 70-28 OK) Mat'l. Code: asco008

Binder - Recycled ID: B2

(Material Full Name and Material Code)

(Design Type and Design Type ID)

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

S3qc0131702800

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

Haskell Lemon (West OKC, OK) - 450TPH PLANT ID # m00428-01

(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	18
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	27
Sand (Unlisted Source)	General Materials	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	15

Asphalt Cement:	Asphaltic Cement Type PG 70-28 OK, acem002, Lion Oil Co. (Muskogee, OK), m00511
	(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Producer/Supplier:	Dolese Co (Davis, OK) P/S # m002745002	Martin-Marietta (Davis, OK) P/S # m002285005	Martin-Marietta (Snyder, OK) P/S # m002323802	General Materials	Contractor / Project Site P/S # Contractor				

Sieve Size	Aggregate						Comb. Agg.	% TOL			Tol. (±)
	1" Rock	Man. Sand	C-33 Scrns.	Sand (Unlisted Source)	Fine R.A.P.			JMF	Min.	Max.	
1 in (25 mm)	100	100	100	100	100		100	100	100	0	
3/4 in (19 mm)	93	100	100	100	100		98	91	100	7	
1/2 in (12.5 mm)	55	100	100	100	100		87	80	94	7	
3/8 in (9.5 mm)	34	100	100	100	99		80	73	87	7	
#4 (4.75 mm)	7	92	96	100	82		67	60	74	7	
#8 (2.36 mm)	3	54	73	99	61		49	44	54	5	
#16 (1.18 mm)	3	30	48	96	46		36	32	40	4	
#30 (.600 mm)	2	17	31	88	35		26	22	30	4	
#50 (.300 mm)	2	10	18	66	25		18	14	22	4	
#100 (.150 mm)	2	6	9	24	15		9	6	12	3	
#200 (.075 mm)	1.4	3.7	4.9	3.7	9.1		4.1	2.1	6.1	2	
AC Content %					5.3		4.3	3.9	4.7	0.4	

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

Mix temperature @ discharge from mixer: 325 (163) ± 20 °F (± 10 °C) **Required**
 Optimum roadway compaction temperature: 305 (152)
 Laboratory mixing temperature: 325 (163)
 Laboratory compaction temperature: 300 (149)

Tests on Asphalt Cement			
Specific Gravity @ 77 ° F	Found	1.0100	
Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	7	90.1	85.5 - 90.5
Ndes	65		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	95/90 min. %
Insoluble Residue		N/A %
LA Abrasion	27	40 max. %
Micro-Deval	16.2	N/A %
Permeability	7.7	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	82	45 min. %
IOC	0.19	%
Gse	2.660	
Gsb	2.638	
Specimen Weight	4850	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required	% VFA
			of Gmm	% Density Required			
3.8	2.365	2.505	94.4	Design / Field	13.8	Design / Field	59.4 % VFA Required
4.3	2.385	2.485	96.0	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0	70.4
4.8	2.404	2.467	97.4		13.2		80.3
Dust Prop.	Dust Prop. Req.	ITS (PSI) 84 N/A min.					
1.2	0.6 - 1.6	TSR 0.90 0.80 / 0.75 min. (Design / Field)					
1.0		Compacted Wt. (lbs/sy/1" thick) = 109.3 @ 4.3 % Asphalt Cement					
0.9		3.5 % New Asphalt Cement					

Hamburg Rut Test Depth (mm) 7.49 12.50 max. @ 15,000 cycles

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

Comments: _____

Last Modified By: Smith, Jerry D. jsmith Date: 12/4/2017
 (User Name and User ID) (mm/dd/yyyy)