



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 ID: B1
(Design Type and Design Type ID)

Haskell Lemon Const Co (Asphalt) P/S # m00428
(Producer/Supplier Name and Producer/Supplier Code)

S3qc0131493801
(Mix ID)

Haskell Lemon (Portable - HWY 33 Perkins)- 400TPH PLANT ID # m00428-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Cooperton, OK) P/S # m002723801	20
3/8" Chips	Dolese Co (Cooperton, OK) P/S # m002723801	10
C-33 Scrms.	Martin-Marietta (Snyder, OK) P/S # m002323802	25
Scrms.	Western Aggregates, LLC (Carnegie, OK) P/S # m006583803	10
Sand (Unlisted Source)	General Materials (MacArthur Pit) (OKC,OK)	10
Coarse 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)		

Sieve Size	Producer/Supplier:							Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
	Dolese Co (Cooperton, OK) P/S # m002723801	Dolese Co (Cooperton, OK) P/S # m002723801	Martin-Marietta (Snyder, OK) P/S # m002323802	Western Aggregates, LLC (Carnegie, OK) P/S # m006583803	General Materials (MacArthur Pit) (OKC,OK)	Contractor / Project Site P/S # Contractor						
1 in (25 mm)	100	100	100	100	100	100	100	100	100	100	100	0
3/4 in (19 mm)	98	100	100	100	100	100	100	100	100	93	100	7
1/2 in (12.5 mm)	59	100	100	99	100	94	90	90	83	97	97	7
3/8 in (9.5 mm)	27	99	100	97	100	80	80	86	79	93	93	7
#4 (4.75 mm)	5	8	95	72	100	33	51	58	51	65	7	x
#8 (2.36 mm)	3	2	70	41	99	23	38	42	37	47	5	x
#16 (1.18 mm)	3	2	47	24	99	19	30	30	26	34	4	
#30 (.600 mm)	2	1	29	16	94	16	23	23	19	27	4	
#50 (.300 mm)	2	1	15	12	66	12	15	15	11	19	4	
#100 (.150 mm)	2	1	7	9	10	7	6	6	3	9	3	
#200 (.075 mm)	1.7	1.1	4.1	7.9	1.2	4.3	3.5	3.5	1.5	5.5	2	
AC Content %						3.6	4.3	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: 305 (152) ± 20 °F (± 10 °C) **Required**
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	82	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	25.3	40 max. %
Micro-Deval	16.4	N/A %
Permeability	3.5	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	81	40 min. %
IOC	0.36	%
Gse	2.679	
Gsb	2.655	
Specimen Weight	4880	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
3.8	2.379	2.521	94.4	Design / Field	13.8	Design / Field	59.4
4.3	2.401	2.501	96.0	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0	70.4
4.8	2.422	2.482	97.6		13.2		81.8

ITS (PSI) 86.1 N/A min.
TSR 0.86 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.0 @ 4.3 % Asphalt Cement
3.4 % New Asphalt Cement

Dust Prop. 1.0 Dust Prop. Req. 0.6 - 1.6
0.9
0.8

Hamburg Rut Test Depth (mm) 4.02 #N/A

MEETS SPECIFICATION REQUIREMENTS PER SPECIAL PROVISION 708-26(a-f) 09
Comments: REVISED (GRAD.) Effective 8/7/14 per contractor's request.

Last Modified By: McComack, Hunter J. hmccomac Date: 8/17/2018
(User Name and User ID) (mm/dd/yyyy)