



Oklahoma Department of Transportation Mix Design Report

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

Insoluble ID: I1

(Material Full Name and Material Code)

(Design Type and Design Type ID)

Paving Materials of Southern Oklahoma, LLC P/S # m00697

S4qc0101382200

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

Pav. Mats. of Southern Ok. (Davis, OK)- 400 TPH PLANT ID # m00697-01

(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	20
1/2" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	20
Scrns.	Dolese Co (Davis, OK) P/S # m002745002	20
Man. Sand	Dolese Co (Davis, OK) P/S # m002745002	30
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	10
Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, HollyFrontier (Catoosa, OK), m01028		
(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Producer/Supplier:	Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-									
	Dolese Co (Davis, OK) P/S # m002745002	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Dolese Co (Davis, OK) P/S # m002745002	Dolese Co (Davis, OK) P/S # m002745002	General Materials Inc (Oklahoma City, OK) P/S # m009215515					
Sieve Size	5/8" Chips	1/2" Chips	Scrns.	Man. Sand	Sand	Comb. Agg.	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)	93	100	100	100	100	99	99	92	100	7
3/8 in (9.5 mm)	55	84	100	100	100	88	88	81	95	7
#4 (4.75 mm)	5	21	90	98	99	63	63	56	70	7
#8 (2.36 mm)	2	2	67	76	99	47	47	42	52	5
#16 (1.18 mm)	1	1	45	38	97	31	31	27	35	4
#30 (.600 mm)	1	1	30	20	91	22	22	18	26	4
#50 (.300 mm)	1	1	18	9	59	13	13	9	17	4
#100 (.150 mm)	1	1	15	7	12	7	7	4	10	3
#200 (.075 mm)	0.6	0.3	12.8	4.2	2.5	4.3	4.3	2.3	6.3	2
AC Content %						4.9	4.9	4.5	5.3	0.4

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

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Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	6	88.6	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	75	40 min. %
F.A.A. %U		N/A %
Flat and Elongated	10	max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	35.4	30 min. %
LA Abrasion	25.3	40 max. %
Micro-Deval	15.3	N/A %
Permeability	8.9	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	83	40 min. %
IOC	0.22	%
Gse	2.702	
Gsb	2.667	
Specimen Weight	4800	g

Tests on Compressed Mixtures								
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required		% VFA
			of Gmm	% Density Required		Design / Field	Design / Field	
4.4	2.348	2.517	93.3		15.8			57.6
4.9	2.398	2.497	96.0	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0		72.4
5.4	2.409	2.478	97.2		14.6			80.8

Dust Prop.
 1.1 **Dust Prop. Req.** 0.6 - 1.6
 1.0
 0.9

ITS (PSI) 226.7 N/A min.
TSR 0.89 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 109.8 @ 4.9 % Asphalt Cement

Hamburg Rut Test Depth (mm) 3.02 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Schratwieser, Edward P. eschratw
 (User Name and User ID)

Date: 12/16/2015
 (mm/dd/yyyy)