Version: V03.40

Oklahoma Department of Transportation Mix Design Report

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

Insoluble ID: I1
(Design Type and Design Type ID)

Paving Materials of Southern Oklahoma, LLC P/S # m00697
(Producer/Supplier Name and Producer/Supplier Code)

S4qc0101392200
(Mix ID)

Pav. Matls. 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, Valero (Ardmore, OK), m00352
(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-

Sieve Size	Producer/Supplier: Dolese Co (Davis, OK) P/S # m002745002 — 5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008 — 1/2" Chips	Dolese Co (Davis, OK) P/S # m002745002 — Scrns.	Dolese Co (Davis, OK) P/S # m002745002 — Man. Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515 — 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

	°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	88.6	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 of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.4	2.348	2.517	93.3	96.0 / 94.5 - 97.4	15.8	14.5 / 14.0	57.6	72 - 77
4.9	2.398	2.497	96.0		14.5		72.4	
5.4	2.409	2.478	97.2		14.6		80.8	

Dust Prop.	Dust Prop. Req.
1.1	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: 2/28/2014
(mm/dd/yyyy)