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)

Binder - Recycled ID: B2
(Design Type and Design Type ID)

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

S4qc0101392400
(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	18
3/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	15
Man. Sand	Dolese Co (Davis, OK) P/S # m002745002	18
Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	16
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	8
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25

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	Dolese Co (Davis, OK) P/S # m002745002 — 3/8" Chips	Dolese Co (Davis, OK) P/S # m002745002 — Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008 — Scrns.	General Materials Inc (Oklahoma City, OK) P/S # m009215515 — Sand	Contractor / Project Site P/S # Contractor — Fine R.A.P.			Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100	100	100			100	**100**	100	100	0
1/2 in (12.5 mm)	93	100	100	100	100	100			99	**99**	92	100	7
3/8 in (9.5 mm)	55	92	100	100	100	95			89	**89**	82	96	7
#4 (4.75 mm)	5	22	98	78	100	83			63	**63**	56	70	7
#8 (2.36 mm)	2	4	76	50	99	67			47	**47**	42	52	5
#16 (1.18 mm)	1	1	38	35	97	46			32	**32**	28	36	4
#30 (.600 mm)	1	1	20	25	91	32			23	**23**	19	27	4
#50 (.300 mm)	1	1	9	19	59	21			15	**15**	11	19	4
#100 (.150 mm)	1	1	7	14	12	14			8	**8**	5	11	3
#200 (.075 mm)	0.6	1.1	4.5	9.6	3.5	8.5			5.0	**5.0**	3.0	7.0	2
AC Content %						5.2			4.8	**4.8**	4.4	5.2	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	88.9	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	15.9	N/A		%
LA Abrasion	25.3	40	max.	%
Micro-Deval	15.3	N/A		%
Permeability	1.5	12.5	max.	10^{-5}cm/s
Sand Equivalent	72	40	min.	%
IOC	0.25			%
Gse	2.708			
Gsb	2.681			
Specimen Weight	4850			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.3	2.359	2.525	93.4	96.0 / 94.5 - 97.4	15.8	14.5 / 14.0	58.2	72 - 77
4.8	2.405	2.506	96.0		14.6		72.6	
5.3	2.413	2.486	97.1		14.8		80.4	

Dust Prop.
1.3
1.1
1.0

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 204.4 N/A min.

TSR 0.81 0.80 / 0.75 min. (Design / Field)

Compacted Wt. (lbs/sy/1" thick) = 110.2 @ 4.8 % Asphalt Cement

3.5 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.10 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: 8/28/2013
(mm/dd/yyyy)