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)

T. J. Campbell P/S # m00570
(Producer/Supplier Name and Producer/Supplier Code)

S4pv0261600400
(Mix ID)

T. J. Campbell (South OKC, OK) - 350TPH PLANT ID # m00570-02
(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	18
Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	15
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	20
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	9
Fine R.A.P.	Contractor / Project Site P/S # Contractor	20

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Coffeyville Resources Refining (Wynnewood, OK), m00357
(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-

Producer/Supplier:	Dolese Co (Davis, OK) P/S # m002745002	Dolese Co (Davis, OK) P/S # m002745002	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Martin-Marietta (Davis, OK) P/S # m002285005	General Materials Inc (Oklahoma City, OK) P/S # m009215515	Contractor / Project Site P/S # Contractor							
Sieve Size	5/8" Chips	3/8" Chips	Scrns.	Man. Sand	Sand	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)	83	100	100	100	100	96			96	96	89	100	7
3/8 in (9.5 mm)	25	96	100	100	100	90			84	84	77	91	7
#4 (4.75 mm)	2	11	84	100	99	72			58	58	51	65	7
#8 (2.36 mm)	1	2	57	54	98	53			39	39	34	44	5
#16 (1.18 mm)	1	1	40	29	97	42			29	29	25	33	4
#30 (.600 mm)	1	1	29	16	92	34			23	23	19	27	4
#50 (.300 mm)	1	1	22	9	68	26			17	17	13	21	4
#100 (.150 mm)	1	1	16	6	12	15			8	8	5	11	3
#200 (.075 mm)	1.0	1.1	12.3	3.6	2.1	9.1			5.0	5.0	3.0	7.0	2
AC Content %						4.7			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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-Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	6	87.7	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	74	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	11.4	N/A		%
LA Abrasion	24	40	max.	%
Micro-Deval	16.2	N/A		%
Permeability	4.4	12.5	max.	10^{-5}cm/s
Sand Equivalent	69	40	min.	%
IOC	0.24			%
Gse	2.699			
Gsb	2.663			
Specimen Weight	4870			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.390	2.498	95.7	Design / Field	14.6	Design / Field	70.5	
5.3	2.412	2.479	97.3	96.0 / 94.5 - 97.4	14.2	14.5 / 14.0	81.0	72 - 77
5.8	2.428	2.460	98.7		14.1		90.8	

Dust Prop.	Dust Prop. Req.
1.2	0.6 - 1.6
1.0	
0.9	

ITS (PSI) 142.2 N/A min.
TSR 0.84 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.7 @ 4.9 % Asphalt Cement
4.0 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.49 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: 2/11/2016
(mm/dd/yyyy)