Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 76-28 OK) Mat'l. Code: asco010
(Material Full Name and Material Code)

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

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

S4pv0261670100
(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	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	22
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	30
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	15

Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, HollyFrontier (Catoosa, OK), m01028
(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:	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	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								
Sieve Size	5/8" Chips	3/8" 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)	85	100	100	100	100				97	97	90	100	7
3/8 in (9.5 mm)	60	96	100	100	100				90	90	83	97	7
#4 (4.75 mm)	24	11	84	100	99				65	65	58	72	7
#8 (2.36 mm)	10	2	57	54	98				42	42	37	47	5
#16 (1.18 mm)	7	1	40	29	97				31	31	27	35	4
#30 (.600 mm)	5	1	29	16	92				24	24	20	28	4
#50 (.300 mm)	5	1	22	9	68				17	17	13	21	4
#100 (.150 mm)	4	1	16	6	12				7	7	4	10	3
#200 (.075 mm)	3.0	1.1	12.3	3.6	2.1				4.1	4.1	2.1	6.1	2
AC Content %									4.9	4.9	4.5	5.3	0.4

	°F (°C)	Required
Mix temperature @ discharge from mixer:	325 (163)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	305 (152)	
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	8	88.1	85.5 - 89.0
Ndes	80		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	98/95	min.	%
Insoluble Residue	41	40	min.	%
LA Abrasion	24	40	max.	%
Micro-Deval	16.2	25	max.	%
Permeability	4.5	12.5	max.	10^{-5}cm/s
Sand Equivalent	82	50	min.	%
IOC	0.39			%
Gse	2.692			
Gsb	2.661			
Specimen Weight	4860			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.383	2.493	95.6	Design / Field	14.7	Design / Field	70.1	
5.3	2.405	2.474	97.2	96.0 / 94.5 - 97.4	14.4	14.5 / 14.0	80.6	72 - 77
5.8	2.425	2.455	98.8		14.2		91.5	

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

ITS (PSI) 121.5 75 min.
TSR 0.81 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.5 @ 4.9 % Asphalt Cement

Hamburg Rut Test Depth (mm) 6.68 #N/A

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

Comments:

Last Modified By: Williams, Bobby Ray bwilli01
(User Name and User ID)

Date: 5/26/2017
(mm/dd/yyyy)