Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 64-22 OK) Mat'l. Code: asco009
(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)

S3pv0261800400
(Mix ID)

T. J. Campbell (Edmond, OK) - 400TPH PLANT ID # m00570-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Davis, OK) P/S # m002745002	17
5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	25
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	23
Sand	Dolese Co. North Plant (Guthrie, OK) P/S # m009094203	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Valero (Arkansas City, KS), m00512
(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	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Martin-Marietta (Davis, OK) P/S # m002285005	Dolese Co. North Plant (Guthrie, OK) P/S # m009094203	Contractor / Project Site P/S # Contractor								
Sieve Size	#67 Rock	5/8" Chips	Man. Sand	Sand	Fine R.A.P.				Comb. Agg.	*JMF*	*Min.*	*Max.*	*% Tol. (±)*
1 in (25 mm)	100	100	100	100	100				100	***100***	*100*	*100*	*0*
3/4 in (19 mm)	92	100	100	100	100				99	***99***	*92*	*100*	*7*
1/2 in (12.5 mm)	58	86	100	100	99				89	***89***	*82*	*96*	*7*
3/8 in (9.5 mm)	35	68	100	100	94				79	***79***	*72*	*86*	*7*
#4 (4.75 mm)	6	24	94	100	74				57	***57***	*50*	*64*	*7*
#8 (2.36 mm)	2	8	56	100	53				38	***38***	*33*	*43*	*5*
#16 (1.18 mm)	2	5	32	100	41				29	***29***	*25*	*33*	*4*
#30 (.600 mm)	2	4	19	95	33				23	***23***	*19*	*27*	*4*
#50 (.300 mm)	1	3	11	63	25				16	***16***	*12*	*20*	*4*
#100 (.150 mm)	1	3	7	15	16				8	***8***	*5*	*11*	*3*
#200 (.075 mm)	1.1	2.3	4.4	1.1	10.2				4.4	***4.4***	*2.4*	*6.4*	*2*
AC Content %					4.9				4.5	***4.5***	*4.1*	*4.9*	*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	89.4	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	71	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue		N/A		%
LA Abrasion	28	40	max.	%
Micro-Deval	13.9	N/A		%
Permeability	5	12.5	max.	10^{-5}cm/s
Sand Equivalent	86	40	min.	%
IOC	0.29			%
Gse	2.679			
Gsb	2.656			
Specimen Weight	4865			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	
4.3	2.389	2.501	95.5	Design / Field	13.9	Design / Field	67.6	% VFA Required
4.8	2.398	2.482	96.6	96.0 / 94.5 - 97.4	14.0	13.5 / 13.0	75.7	70 - 75
5.3	2.416	2.463	98.1		13.9		86.3	

Dust Prop.
1.1
1.0
0.9

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 136.6 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.7 @ 4.5 % Asphalt Cement
3.3 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.31 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 3/22/2018
(mm/dd/yyyy)