Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 76-28 OK) Mat'l. Code: asco007
(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)

S3pv0261700300
(Mix ID)

T. J. Campbell (South OKC, OK) - 350TPH PLANT ID # m00570-02
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#57 Rock	Martin-Marietta (Davis, OK) P/S # m002285005	15
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	20
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	25
Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	15
Sand (Unlisted Source)	GMI @ OKC, OK	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	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:	Martin-Marietta (Davis, OK) P/S # m002285005	Dolese Co (Davis, OK) P/S # m002745002	Martin-Marietta (Davis, OK) P/S # m002285005	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	GMI @ OKC, OK	Contractor / Project Site P/S # Contractor							
Sieve Size	#57 Rock	5/8" Chips	Man. Sand	Scrns.	Sand (Unlisted Source)	Fine R.A.P.			Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
1 in (25 mm)	100	100	100	100	100	100			100	100	100	100	0
3/4 in (19 mm)	72	100	100	100	100	100			96	96	89	100	7
1/2 in (12.5 mm)	39	94	100	100	100	95			89	89	82	96	7
3/8 in (9.5 mm)	24	68	99	100	100	87			80	80	73	87	7
#4 (4.75 mm)	5	9	95	85	100	67			59	59	52	66	7
#8 (2.36 mm)	2	2	52	57	100	51			40	40	35	45	5
#16 (1.18 mm)	2	1	27	41	99	40			29	29	25	33	4
#30 (.600 mm)	2	1	15	31	95	33			23	23	19	27	4
#50 (.300 mm)	1	1	9	23	66	25			16	16	12	20	4
#100 (.150 mm)	1	1	6	18	16	15			8	8	5	11	3
#200 (.075 mm)	0.9	1.0	4.0	13.4	2.4	10.0			5.1	5.1	3.1	7.1	2
AC Content %						5.2			4.4	4.4	4.0	4.8	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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-Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)	# Gyr.	% Density of Gmm	% Density Required
Nini	8	88.7	85.5 - 89.0
Ndes	80		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	98/95	min.	%
Insoluble Residue		N/A		%
LA Abrasion	28	40	max.	%
Micro-Deval	13.9	25	max.	%
Permeability	0.8	12.5	max.	10^{-5}cm/s
Sand Equivalent	69	50	min.	%
IOC	0.37			%
Gse	2.684			
Gsb	2.654			
Specimen Weight	4885			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.3	2.398	2.505	95.7	Design / Field	13.5	Design / Field	68.1	
4.8	2.415	2.486	97.1	96.0 / 94.5 - 97.4	13.4	13.5 / 13.0	78.4	70 - 75
5.3	2.427	2.467	98.4		13.4		88.1	

Dust Prop.	Dust Prop. Req.
1.3	0.6 - 1.6
1.2	
1.0	

ITS (PSI) 144.5 75 min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.0 @ 4.4 % Asphalt Cement
3.6 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 5.93 12.50 max. @ 20,000 cycles

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: 4/4/2017
(mm/dd/yyyy)