Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 70-28 OK) Mat'l. Code: asco008
(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)

S3pv0261600100
(Mix ID)

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

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Davis, OK) P/S # m002745002	10
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	25
Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	20
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	20
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	10
Coarse R.A.P.	Contractor / Project Site P/S # Contractor	15

Asphalt Cement: Asphaltic Cement Type PG 70-28 OK, acem002, 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:	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	#67 Rock	5/8" Chips	Scrns.	Man. Sand	Sand	Coarse 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)	93	100	100	100	100	100			99	99	92	100	7
1/2 in (12.5 mm)	50	83	100	100	100	91			89	89	82	96	7
3/8 in (9.5 mm)	17	35	100	100	100	80			72	72	65	79	7
#4 (4.75 mm)	3	2	84	100	99	58			56	56	49	63	7
#8 (2.36 mm)	2	1	57	54	98	43			39	39	34	44	5
#16 (1.18 mm)	1	1	40	29	97	34			29	29	25	33	4
#30 (.600 mm)	1	1	29	16	92	28			23	23	19	27	4
#50 (.300 mm)	1	1	22	9	68	22			17	17	13	21	4
#100 (.150 mm)	1	1	16	6	12	13			8	8	5	11	3
#200 (.075 mm)	1.1	0.7	12.3	3.6	2.1	8.4			4.9	4.9	2.9	6.9	2
AC Content %						4.9			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

Requires Form 93-E0 signed by the Department for production use.
-Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	7	88.1	85.5 - 90.5
Ndes	65		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	95/90	min.	%
Insoluble Residue	14.5	N/A		%
LA Abrasion	24	40	max.	%
Micro-Deval	16.2	N/A		%
Permeability	3.5	12.5	max.	10^{-5}cm/s
Sand Equivalent	67	45	min.	%
IOC	0.36			%
Gse	2.697			
Gsb	2.665			
Specimen Weight	4905			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.3	2.407	2.516	95.7	Design / Field	13.6	Design / Field	68.4	
4.8	2.425	2.497	97.1	96.0 / 94.5 - 97.4	13.4	13.5 / 13.0	78.4	70 - 75
5.3	2.441	2.478	98.5		13.3		88.7	

Dust Prop.	Dust Prop. Req.
1.3	0.6 - 1.6
1.1	
1.0	

ITS (PSI) 149.3 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.5 @ 4.4 % Asphalt Cement
3.7 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.65 12.50 max. @ 15,000 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)