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)

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

Highway Contr Co P/S # m00559
(Producer/Supplier Name and Producer/Supplier Code)

S4pv0441701200
(Mix ID)

Highway Contr Co (Guymon, OK)- 250TPH PLANT ID # m00559-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Martin-Marietta (Snyder, OK) P/S # m002323802	38
Man. Sand	Martin-Marietta (Snyder, OK) P/S # m002323802	30
Scrns.	Dolese Co (Cooperton, OK) P/S # m002723801	20
Sand (Unlisted Source)	D&S Materials (Enid, OK)	12

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Coastal Energy (Clinton, OK), m01042
(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 (Snyder, OK) P/S # m002323802	Martin-Marietta (Snyder, OK) P/S # m002323802	Dolese Co (Cooperton, OK) P/S # m002723801	D&S Materials (Enid, OK)									
Sieve Size	5/8" Chips	Man. Sand	Scrns.	Sand (Unlisted Source)					Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100					100	100	100	100	0
1/2 in (12.5 mm)	90	100	100	100					96	96	89	100	7
3/8 in (9.5 mm)	62	100	100	100					86	86	79	93	7
#4 (4.75 mm)	14	89	98	100					64	64	57	71	7
#8 (2.36 mm)	3	60	65	100					44	44	39	49	5
#16 (1.18 mm)	2	39	40	100					32	32	28	36	4
#30 (.600 mm)	1	24	28	99					25	25	21	29	4
#50 (.300 mm)	1	14	20	75					18	18	14	22	4
#100 (.150 mm)	0	8	15	18					8	8	5	11	3
#200 (.075 mm)	0.2	4.4	11.5	4.6					4.2	4.2	2.2	6.2	2
AC Content %									5.0	5.0	4.6	5.4	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	89.3	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	86	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	2	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	85.9	30	min.	%
LA Abrasion	20	40	max.	%
Micro-Deval	4.1	N/A		%
Permeability	8.1	12.5	max.	10^{-5}cm/s
Sand Equivalent	82	40	min.	%
IOC	0.03			%
Gse	2.650			
Gsb	2.624			
Specimen Weight	4632			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.5	2.319	2.470	93.9	Design / Field	15.6	Design / Field	60.9	
5.0	2.355	2.451	96.1	96.0 / 94.5 - 97.4	14.7	14.5 / 14.0	73.5	72 - 77
5.5	2.384	2.433	98.0		14.1		85.8	

Dust Prop.	Dust Prop. Req.
1.0	0.6 - 1.6
0.9	
0.8	

ITS (PSI) 80.3 N/A min.
TSR 0.85 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 107.8 @ 5.0 % Asphalt Cement

Hamburg Rut Test Depth (mm) 3.69 12.50 max. @ 10,000 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: 4/25/2017
(mm/dd/yyyy)