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)

Caswell Contracting Inc. P/S # m00551
(Producer/Supplier Name and Producer/Supplier Code)

S4pv0111380701
(Mix ID)

Caswell Contracting (Elk City, OK) - 350TPH PLANT ID # m00551-02
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Martin-Marietta (Snyder, OK) P/S # m002323802	40
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	25
Scrns.	Dolese Co (Cooperton, OK) P/S # m002723801	25
Sand (Unlisted Source)	McLemore Pit(Elk City, OK)	10

Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, 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	McLemore Pit(Elk City, OK)										
Sieve Size	5/8" Chips	C-33 Scrns.	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)	65	100	100	100					86	86	79	93	7	
#4 (4.75 mm)	13	93	92	100					61	61	54	68	7	
#8 (2.36 mm)	3	67	63	100					44	44	39	49	5	
#16 (1.18 mm)	2	45	42	98					32	32	28	36	4	
#30 (.600 mm)	1	28	29	88					23	23	19	27	4	
#50 (.300 mm)	1	14	20	36					13	13	9	17	4	
#100 (.150 mm)	1	6	15	13					7	7	4	10	3	
#200 (.075 mm)	0.7	3.0	11.3	5.6					4.4	4.4	2.4	6.4	2	
AC Content %									5.4	4.9	4.5	5.3	0.4	x

	°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	88.0	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates		Required		Units
Durability Index	81	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	84.1	40	min.	%
LA Abrasion	25	40	max.	%
Micro-Deval	19.6	25	max.	%
Permeability	0.1	12.5	max.	10^{-5}cm/s
Sand Equivalent	78	50	min.	%
IOC	0.18			%
Gse	2.659			
Gsb	2.612			
Specimen Weight	4700			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.315	2.466	93.9	Design / Field	15.6	Design / Field	60.9	
5.3	2.341	2.447	95.7	96.0 / 94.5 - 97.4	15.1	14.5 / 14.0	71.5	72 - 77
5.8	2.365	2.429	97.4		14.7		82.3	

Dust Prop.
1.1
0.9
0.8

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 102.7 75 min.
TSR 0.94 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 108.3 @ 5.4 % Asphalt Cement

x 1st JMF Revision

Hamburg Rut Test Depth (mm) 4.74 #N/A

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

Comments:

Last Modified By: McComack, Hunter J. hmccomac
(User Name and User ID)

Date: 6/22/2018
(mm/dd/yyyy)