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)

Binder - Recycled ID: B2
(Design Type and Design Type ID)

Overland Corp P/S # m00433
(Producer/Supplier Name and Producer/Supplier Code)

S4pv0261600900
(Mix ID)

Overland Corp (Ardmore, OK) - 400TPH PLANT ID # m00433-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	20
3/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	15
Scrns.	Dolese Co (Ardmore, OK) P/S # m002701001	10
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	20
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Valero (Ardmore, OK), m00352
(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 (Ardmore, OK) P/S # m002701001	Dolese Co (Ardmore, OK) P/S # m002701001	Dolese Co (Ardmore, OK) P/S # m002701001	Martin-Marietta (Mill Creek, OK) P/S # m002303502	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	Contractor / Project Site P/S # Contractor							
Sieve Size	5/8" Chips	3/8" Chips	Scrns.	C-33 Scrns.	Sand	Fine R.A.P.			Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100	100	100			100	100	100	100	0
1/2 in (12.5 mm)	93	100	100	100	100	98			98	98	91	100	7
3/8 in (9.5 mm)	67	96	100	100	100	90			90	90	83	97	7
#4 (4.75 mm)	11	18	99	96	100	65			60	60	53	67	7
#8 (2.36 mm)	3	3	59	80	100	48			45	45	40	50	5
#16 (1.18 mm)	2	2	34	53	99	36			34	34	30	38	4
#30 (.600 mm)	2	2	22	32	97	28			26	26	22	30	4
#50 (.300 mm)	2	2	17	16	71	21			18	18	14	22	4
#100 (.150 mm)	2	2	13	5	22	12			8	8	5	11	3
#200 (.075 mm)	1.3	1.4	11.3	2.2	1.5	7.3			4.0	4.0	2.0	6.0	2
AC Content %						4.1			4.9	4.9	4.5	5.3	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	80	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	8.6	N/A		%
LA Abrasion	31	40	max.	%
Micro-Deval	12.6	N/A		%
Permeability	4.2	12.5	max.	10^{-5}cm/s
Sand Equivalent	90	40	min.	%
IOC	0.11			%
Gse	2.681			
Gsb	2.646			
Specimen Weight	4840			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.376	2.484	95.7	Design / Field	14.5	Design / Field	70.3	
5.3	2.396	2.465	97.2	96.0 / 94.5 - 97.4	14.2	14.5 / 14.0	80.3	72 - 77
5.8	2.415	2.446	98.7		14.0		90.7	

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

ITS (PSI) 147.7 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.1 @ 4.9 % Asphalt Cement
3.9 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.65 12.50 max. @ 10,000 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: 8/1/2016
(mm/dd/yyyy)