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)

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

S4pv0261201101
(Mix ID)

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

Aggregate	Producer/Supplier	% USED
5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	20
5/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	20
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	20
Scrns.	Dolese Co (Ardmore, OK) P/S # m002701001	25
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	15

Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, 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-

Sieve Size	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Dolese Co (Ardmore, OK) P/S # m002701001	Martin-Marietta (Mill Creek, OK) P/S # m002303502	Dolese Co (Ardmore, OK) P/S # m002701001	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)	
	5/8" Chips	5/8" Chips	C-33 Scrns.	Scrns.	Sand									
3/4 in (19 mm)	100	100	100	100	100				100	100	100	100	0	
1/2 in (12.5 mm)	92	96	100	100	100				98	98	91	100	7	
3/8 in (9.5 mm)	75	60	100	100	100				87	87	80	94	7	
#4 (4.75 mm)	23	5	100	87	100				62	68	61	75	7	x
#8 (2.36 mm)	2	2	82	58	100				47	53	48	58	5	x
#16 (1.18 mm)	1	1	51	38	99				35	37	33	41	4	x
#30 (.600 mm)	1	1	28	25	94				26	26	22	30	4	
#50 (.300 mm)	1	1	20	18	80				21	19	15	23	4	x
#100 (.150 mm)	1	1	4	13	17				7	7	4	10	3	
#200 (.075 mm)	1.1	0.7	1.9	10.7	2.7				3.8	3.8	1.8	5.8	2	
AC Content %									4.8	4.8	4.4	5.2	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	88.4	85.5 - 89.0
Ndes	80		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	98/95	min.	%
Insoluble Residue	43.9	40	min.	%
LA Abrasion	23.5	40	max.	%
Micro-Deval	10.4	25	max.	%
Permeability	0	12.5	max.	10^{-5}cm/s
Sand Equivalent	75	50	min.	%
IOC	0.12			%
Gse	2.680			
Gsb	2.649			
Specimen Weight	4845			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.380	2.483	95.9	Design / Field	14.5	Design / Field	71.7	
5.3	2.393	2.464	97.1	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	80.0	72 - 77
5.8	2.406	2.445	98.4		14.4		88.9	

Dust Prop.
0.9
0.8
0.7

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 112.9 75 min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.2 @ 4.8 % Asphalt Cement

x 1st JMF Revision

Hamburg Rut Test Depth (mm) 2.41 12.50 max. @ 20,000 cycles

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

Comments: REVISED (GRAD.) Effective 10/12/15 per contractor's request.

Last Modified By: Schratwieser, Edward P. eschratw
(User Name and User ID)

Date: 10/20/2015
(mm/dd/yyyy)