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)

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

S4c00931791700
(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	25
5/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	15
Scrns.	Dolese Co (Ardmore, OK) P/S # m002701001	30
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	15
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	15

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Coffeyville Resources Refining (Wynnewood, OK), m00357
(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:	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	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								
Sieve Size	5/8" Chips	5/8" Chips	Scrns.	C-33 Scrns.	Sand				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100	100				100	100	100	100	0
1/2 in (12.5 mm)	88	95	100	100	100				96	96	89	100	7
3/8 in (9.5 mm)	69	69	100	100	100				88	88	81	95	7
#4 (4.75 mm)	23	9	90	100	100				64	64	57	71	7
#8 (2.36 mm)	6	3	59	78	100				46	46	41	51	5
#16 (1.18 mm)	3	2	35	45	100				33	33	29	37	4
#30 (.600 mm)	3	2	22	21	95				25	25	21	29	4
#50 (.300 mm)	3	2	15	6	69				17	17	13	21	4
#100 (.150 mm)	2	1	12	1	22				8	8	5	11	3
#200 (.075 mm)	2.0	1.1	9.9	1.1	3.2				4.3	4.3	2.3	6.3	2
AC Content %									4.8	4.8	4.4	5.2	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

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	6	88.5	85.5 - 91.5
Ndes	50		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	85/80	min.	%
Insoluble Residue	48.6	30	min.	%
LA Abrasion	23.5	40	max.	%
Micro-Deval	10.4	N/A		%
Permeability	0.3	12.5	max.	10^{-5}cm/s
Sand Equivalent	83	40	min.	%
IOC	0.35			%
Gse	2.687			
Gsb	2.659			
Specimen Weight	4860			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.8	2.387	2.489	95.9		14.5		71.7	
5.3	2.396	2.470	97.0	96.0 / 94.5 - 97.4	14.7	14.5 / 14.0	79.6	72 - 77
5.8	2.406	2.451	98.2		14.8		87.8	

Dust Prop.
1.0
0.9
0.8

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 132 N/A min.
TSR 0.89 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.5 @ 4.8 % Asphalt Cement

Hamburg Rut Test Depth (mm) 3.86 #N/A

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

Comments:

Last Modified By: Suitor, Kevin ksuitor
(User Name and User ID)

Date: 3/5/2018
(mm/dd/yyyy)