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)

S4pv0261800300
(Mix ID)

Overland Corp #ASTEC-3 (Portable) PLANT ID # m00433-04
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	35
3/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	27
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	10
3/16" Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	13
Sand (Unlisted Source)	Ingram Sand Pit	15

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:	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Dolese Co (Davis, OK) P/S # m002745002	Martin-Marietta (Davis, OK) P/S # m002285005	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Ingram Sand Pit								
Sieve Size	5/8" Chips	3/8" Chips	Man. Sand	3/16" Scrns.	Sand (Unlisted Source)				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)	87	100	100	100	100				95	95	88	100	7
3/8 in (9.5 mm)	67	96	100	100	100				87	87	80	94	7
#4 (4.75 mm)	23	21	94	100	100				51	51	44	58	7
#8 (2.36 mm)	7	4	60	76	97				34	34	29	39	5
#16 (1.18 mm)	4	2	36	51	87				25	25	21	29	4
#30 (.600 mm)	4	2	21	34	63				18	18	14	22	4
#50 (.300 mm)	3	2	13	23	41				12	12	8	16	4
#100 (.150 mm)	3	2	7	16	10				6	6	3	9	3
#200 (.075 mm)	2.3	1.6	4.4	11.2	1.0				3.3	3.3	1.3	5.3	2
AC Content %									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	87.9	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	71	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	54.5	30	min.	%
LA Abrasion	28	40	max.	%
Micro-Deval	13.9	N/A		%
Permeability	7.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	82	40	min.	%
IOC	0.44			%
Gse	2.667			
Gsb	2.649			
Specimen Weight	4820			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	2.361	2.472	95.5		15.2		70.4	
5.3	2.382	2.454	97.1	96.0 / 94.5 - 97.4	14.8	14.5 / 14.0	80.4	72 - 77
5.8	2.398	2.435	98.5		14.7		89.8	

Dust Prop.
0.7
0.6
0.6

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 99.3 N/A min.
TSR 0.83 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 108.6 @ 4.9 % Asphalt Cement

Hamburg Rut Test Depth (mm) 2.50 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 3/23/2018
(mm/dd/yyyy)