Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 70-28 OK) Mat'l. Code: asco011
(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)

S4pv0261601000
(Mix ID)

Overland Corp (Duncan) 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	30
3/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	20
3/16" Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	20
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	15
Sand	E & A Materials (Temple, OK) P/S # m001831701	15

Asphalt Cement: Asphaltic Cement Type PG 70-28 OK, acem002, 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	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Martin-Marietta (Davis, OK) P/S # m002285005	E & A Materials (Temple, OK) P/S # m001831701								
Sieve Size	5/8" Chips	3/8" Chips	3/16" Scrns.	Man. Sand	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)	89	100	100	100	100				97	97	90	100	7
3/8 in (9.5 mm)	61	97	100	100	100				88	88	81	95	7
#4 (4.75 mm)	17	22	100	94	100				59	59	52	66	7
#8 (2.36 mm)	4	3	72	54	100				39	39	34	44	5
#16 (1.18 mm)	2	2	46	30	100				30	30	26	34	4
#30 (.600 mm)	2	1	31	17	96				24	24	20	28	4
#50 (.300 mm)	2	1	21	10	46				13	13	9	17	4
#100 (.150 mm)	2	1	15	6	3				5	5	2	8	3
#200 (.075 mm)	1.9	1.2	10.6	3.7	0.3				3.5	3.5	1.5	5.5	2
AC Content %									5.0	5.0	4.6	5.4	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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Tests on Compressed Mixtures (@ Design AC)	# Gyr.	% Density of Gmm	% Density Required
Nini	7	88.7	85.5 - 90.5
Ndes	65		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	95/90	min.	%
Insoluble Residue	56.4	40	min.	%
LA Abrasion	28	40	max.	%
Micro-Deval	13.9	N/A		%
Permeability	4.4	12.5	max.	10^{-5}cm/s
Sand Equivalent	86	45	min.	%
IOC	0.31			%
Gse	2.685			
Gsb	2.651			
Specimen Weight	4840			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.371	2.487	95.3	Design / Field	14.9	Design / Field	68.5	
5.3	2.393	2.468	97.0	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	79.3	72 - 77
5.8	2.408	2.449	98.3		14.4		88.2	

Dust Prop.	Dust Prop. Req.
0.8	0.6 - 1.6
0.7	
0.7	

ITS (PSI) 117.1 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.1 @ 5.0 % Asphalt Cement

Hamburg Rut Test Depth (mm) 4.61 12.50 max. @ 15,000 cycles

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

Comments:

Last Modified By: Williams, Bobby Ray bwilli01
(User Name and User ID)

Date: 1/4/2017
(mm/dd/yyyy)