



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)
 Overland Corp P/S # m00433
 (Producer/Supplier Name and Producer/Supplier Code)
 Overland Corp #ASTEC-3 (Portable) PLANT ID # m00433-04
 (Plant Name and Plant ID)

Insoluble ID: I1
 (Design Type and Design Type ID)
 S4pv0261890300
 (Mix 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" Scms.	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, Coffeyville Resources Refining (Wynnewood, OK), m00357
 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Sieve Size	Producer/Supplier:						Comb. Agg.	Requirements			
	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			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	

Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-

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	% Density		% VMA	% VMA Required	% VFA	% VFA Required
		Gmm	% Density Required				
4.8	2.361	2.472	95.5	15.2	15.2	70.4	72 - 77
5.3	2.382	2.454	97.1	14.8	14.5 / 14.0	80.4	
5.8	2.398	2.435	98.5	14.7		89.8	

Dust Prop.	Dust Prop. Req.	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: McComack, Hunter J. hmccomac
 (User Name and User ID)

Date: 4/18/2018
 (mm/dd/yyyy)