



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 64-22 OK) Mat'l. Code: asco009  
 (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)

Binder ID: B1  
 (Design Type and Design Type ID)  
 S3pv0261800200  
 (Mix ID)

Aggregate	Producer/Supplier	% USED
1" Rock	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	37
3/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	25
Man. Sand	Martin-Marietta (Davis, OK) P/S # m002285005	11
Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	12
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)		

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	1" Rock	3/8" Chips	Man. Sand	Scrns.	Sand (Unlisted Source)							Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
	1 in (25 mm)	100	100	100	100	100						100	100	100	100	0
3/4 in (19 mm)	88	100	100	100	100	100						96	96	89	100	7
1/2 in (12.5 mm)	46	100	100	100	100	100						80	80	73	87	7
3/8 in (9.5 mm)	23	96	100	100	100	100						71	71	64	78	7
#4 (4.75 mm)	9	21	94	100	100	100						46	46	39	53	7
#8 (2.36 mm)	5	4	60	76	97							33	33	28	38	5
#16 (1.18 mm)	4	2	36	51	87							25	25	21	29	4
#30 (.600 mm)	3	2	21	34	63							17	17	13	21	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)	2.0	1.6	4.4	11.2	1.0							3.1	3.1	1.1	5.1	2
AC Content %												4.5	4.5	4.1	4.9	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 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		N/A %
LA Abrasion	28	40 max. %
Micro-Deval	13.9	N/A %
Permeability	7.4	12.5 max. 10 <sup>-5</sup> cm/s
Sand Equivalent	72	40 min. %
IOC	0.46	%
Gse	2.714	
Gsb	2.674	
Specimen Weight	4925	g

Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	6	88.2	85.5 - 91.5
Ndes	50		96.0

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.3	2.411	2.530	95.3	Design / Field	13.7	Design / Field	65.7
4.8	2.434	2.511	96.9	96.0 / 94.5 - 97.4	13.3	13.5 / 13.0	76.7
5.3	2.459	2.491	98.7		12.9		89.9
							% VFA Required
							70 - 75

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

ITS (PSI) 138.8 N/A min.  
 TSR 0.86 0.80 / 0.75 min. (Design / Field)  
 Compacted Wt. (lbs/sy/1" thick) = 111.0 @ 4.5 % Asphalt Cement

Hamburg Rut Test Depth (mm) 2.19 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 Date: 3/23/2018  
 (User Name and User ID) (mm/dd/yyyy)