



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)

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

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

S3pv0261890200
(Mix ID)

Overland Corp #ASTEC-3 (Portable) PLANT ID # m00433-04
(Plant Name and Plant 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
Scrms.	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, Coffeyville Resources Refining (Wynnewood, OK), m00357 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	Producer/Supplier:						Comb. Agg.	Tol. (%)			
	1" Rock	3/8" Chips	Man. Sand	Scrms.	Sand (Unlisted Source)	JMF		Min.	Max.	(±)	
1 in (25 mm)	100	100	100	100	100	100	100	100	100	0	
3/4 in (19 mm)	88	100	100	100	100	96	96	89	100	7	
1/2 in (12.5 mm)	46	100	100	100	100	80	80	73	87	7	
3/8 in (9.5 mm)	23	96	100	100	100	71	71	64	78	7	
#4 (4.75 mm)	9	21	94	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) °F (°C) Required ± 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	88.2	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		N/A %
LA Abrasion	28	40 max. %
Micro-Deval	13.9	N/A %
Permeability	7.4	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	72	40 min. %
IOC	0.46	%
Gse	2.714	
Gsb	2.674	
Specimen Weight	4925	g

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

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

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 #N/A

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)