



# 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 (Ardmore, OK) - 400TPH PLANT ID # m00433-01  
 (Plant Name and Plant ID)

Binder - Recycled ID: B2  
 (Design Type and Design Type ID)  
 S4pv0261690900  
 (Mix ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	20
3/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	15
Scrns.	Dolese Co (Ardmore, OK) P/S # m002701001	10
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	20
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25
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			
	5/8" Chips	3/8" Chips	Scrns.	C-33 Scrns.	Sand	Fine R.A.P.		JMF	Min.	Max.	Tol. (±)
3/4 in (19 mm)	100	100	100	100	100	100	100	100	100	100	0
1/2 in (12.5 mm)	93	100	100	100	100	98	98	91	100	7	
3/8 in (9.5 mm)	67	96	100	100	100	90	90	83	97	7	
#4 (4.75 mm)	11	18	99	96	100	65	60	53	67	7	
#8 (2.36 mm)	3	3	59	80	100	48	45	40	50	5	
#16 (1.18 mm)	2	2	34	53	99	36	34	30	38	4	
#30 (.600 mm)	2	2	22	32	97	28	26	22	30	4	
#50 (.300 mm)	2	2	17	16	71	21	18	14	22	4	
#100 (.150 mm)	2	2	13	5	22	12	8	5	11	3	
#200 (.075 mm)	1.3	1.4	11.3	2.2	1.5	7.3	4.0	2.0	6.0	2	
AC Content %						4.1	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) **Required**  
 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	89.3	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	40 min.	%
F.A.A. %U	N/A	%
Flat and Elongated	0	10 max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	8.6	N/A %
LA Abrasion	31	40 max. %
Micro-Deval	12.6	N/A %
Permeability	4.2	12.5 max. 10 <sup>-5</sup> cm/s
Sand Equivalent	90	40 min. %
IOC	0.11	%
Gse	2.681	
Gsb	2.646	
Specimen Weight	4840	g

Tests on Compressed Mixtures								
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required		% VFA
			of Gmm	% Density Required		Design / Field	Design / Field	
4.8	2.376	2.484	95.7	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	70.3	% VFA Required
5.3	2.396	2.465	97.2		14.2		80.3	72 - 77
5.8	2.415	2.446	98.7		14.0		90.7	

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

**ITS (PSI)** 147.7 N/A min.  
**TSR** 0.80 0.80 / 0.75 min. (Design / Field)  
 Compacted Wt. (lbs/sy/1" thick) = 109.1 @ 4.9 % Asphalt Cement  
 3.9 % New Asphalt Cement

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

Comments: \_\_\_\_\_  
 Last Modified By: Suitor, Kevin ksuito Date: 3/5/2018  
 (User Name and User ID) (mm/dd/yyyy)