



# 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)  
 Venture Corporation P/S # m00719  
 (Producer/Supplier Name and Producer/Supplier Code)  
 Venture Corporation- Portable PLANT ID # m00719-01  
 (Plant Name and Plant ID)

Binder - Recycled ID: B2  
 (Design Type and Design Type ID)  
 WS3qc0411790101  
 (Mix ID)

Aggregate	Producer/Supplier	% USED
#57 Rock	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	30
Man. Sand	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	25
Coarse Scrns.	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	5
Chat Sand	Bingham S & G (Baxter Springs, KS) P/S # m001578009	5
Sand (Unlisted Source)	Pond Creek Dry Back Sand, Grant Co.	10
Fine R.A.P.	Venture Corporation	25

Warm Mix Asphalt (WMA) Technology | EVOTHERM (Chem. Add.) qual028 Ingevity m00941  
 (Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Asphalt Additive, Anti-Strip | \_\_\_\_\_  
 (Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

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)

Sieve Size	Producer/Supplier:							Comb. Agg.	% Tol. (±)			
	#57 Rock	Man. Sand	Coarse Scrns.	Chat Sand	Sand (Unlisted Source)	Fine R.A.P.	JMF		Min.	Max.	(±)	
1 in (25 mm)	100	100	100	100	100	100	100	100	100	100	0	
3/4 in (19 mm)	91	100	100	100	100	100	97	97	90	100	7	
1/2 in (12.5 mm)	50	100	100	100	100	94	84	84	77	91	7	
3/8 in (9.5 mm)	28	100	100	100	100	87	75	75	68	82	7	
#4 (4.75 mm)	7	96	100	99	100	70	64	64	57	71	7	
#8 (2.36 mm)	2	57	80	72	100	50	45	45	40	50	5	
#16 (1.18 mm)	1	29	51	45	99	35	31	31	27	35	4	
#30 (.600 mm)	1	16	35	24	95	26	23	23	19	27	4	
#50 (.300 mm)	1	8	26	12	50	17	13	20	16	24	4	
#100 (.150 mm)	1	6	20	6	14	12	8	8	5	11	3	
#200 (.075 mm)	0.8	4.4	16.9	5.0	4.5	9.8	5.3	5.3	3.3	7.3	2	
AC Content %						4.9	4.7	4.7	4.3	5.1	0.4	

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

Warm Mix Asphalt (WMA) Additive % 0.4

Mix temperature @ discharge from mixer: \_\_\_\_\_ °F (°C) Required ± 20 °F (± 10 °C)  
 Optimum roadway compaction temperature: \_\_\_\_\_  
 Laboratory mixing temperature: \_\_\_\_\_  
 Laboratory compaction temperature: \_\_\_\_\_

Tests on Asphalt Cement	Found
Specific Gravity @ 77 °F	1.0100

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	% Density		
	# Gyr.	of Gmm	% Density Required
Nini	6	87.8	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	76	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	1	10 max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	N/A	%
LA Abrasion	24	40 max. %
Micro-Deval	12.3	N/A %
Permeability	10.3	12.5 max. 10 <sup>-5</sup> cm/s
Sand Equivalent	69	40 min. %
Pba	0.42	%
IOC	0.07	%
Gse	2.654	
Gsb	2.625	
Specimen Weight	4750	g

Tests on Compressed Mixtures					
%AC	Gmm	% Density Required	% VMA Required	% VFA	% VFA Required
		Design / Field	Design / Field		
4.3	2.480	96.0 / 94.5 - 97.4	13.5 / 13.0		70 - 75
4.8	2.462				
5.3	2.443				

  

Dust Prop.	Dust Prop. Req.	ITS (PSI)	122.4	N/A min.
1.4	0.6 - 1.6	TSR	0.90	0.80 / 0.75 min. (Design / Field)
1.2		Compacted Wt. (lbs/sy/1" thick) =	108.5	@ 4.7 % Asphalt Cement
1.1				3.5 % New Asphalt Cement

x 1st JMF Revision

Hamburg Rut Test Depth (mm) 2.05 #N/A

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

Comments: Revised JMF by Contractor 10/22/17; ksutor

Last Modified By: Suitor, Kevin ksutor (User Name and User ID)

Date: 1/8/2018 (mm/dd/yyyy)