



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)
 T & G Const Co P/S # m00566
 (Producer/Supplier Name and Producer/Supplier Code)
 T & G Const Co #1 (Lawton, OK) - 400TPH PLANT ID # m00566-01
 (Plant Name and Plant ID)

Binder ID: B1
 (Design Type and Design Type ID)
 WS4c00931490100
 (Mix ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co. (Richards Spur, OK) P/S # m002761601	25
3/8" Chips	Dolese Co. (Richards Spur, OK) P/S # m002761601	14
Scrs.	Dolese Co. (Richards Spur, OK) P/S # m002761601	25
Scrs.	Martin-Marietta (Snyder, OK) P/S # m002323802	25
Sand (Unlisted Source)	T & G Sand Pit (Snyder, OK)	11
Warm Mix Asphalt (WMA) Technology: TEREX (Foaming Process) qual028 Terex Roadbuilding m00801 (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:					Sand (Unlisted Source)	Comb. Agg.	%			Tol. (±)
	Dolese Co. (Richards Spur, OK) P/S # m002761601	Dolese Co. (Richards Spur, OK) P/S # m002761601	Dolese Co. (Richards Spur, OK) P/S # m002761601	Martin-Marietta (Snyder, OK) P/S # m002323802	T & G Sand Pit (Snyder, OK)			JMF	Min.	Max.	
3/4 in (19 mm)	100	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	92	100	100	100	100	98	98	91	100	7	
3/8 in (9.5 mm)	57	94	100	100	100	88	88	81	95	7	
#4 (4.75 mm)	8	17	89	96	100	62	62	55	69	7	
#8 (2.36 mm)	3	4	51	75	99	44	44	39	49	5	
#16 (1.18 mm)	3	2	31	54	98	33	33	29	37	4	
#30 (.600 mm)	2	2	21	39	90	26	26	22	30	4	
#50 (.300 mm)	2	2	16	26	48	17	17	13	21	4	
#100 (.150 mm)	2	1	12	18	8	9	9	6	12	3	
#200 (.075 mm)	1.7	1.3	10.2	11.4	0.8	6.1	6.1	4.1	8.1	2	
AC Content %						5.1	5.1	4.7	5.5	0.4	

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

Warm Mix Asphalt (WMA) Additive % 2.0

Mix temperature @ discharge from mixer: 275 (135) ± 20 °F (± 10 °C) **Required**
 Optimum roadway compaction temperature: 260 (127)
 Laboratory mixing temperature: 325 (163)
 Laboratory compaction temperature: 300 (149)

Tests on Aggregates	Required	Units
Durability Index	79	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	25	40 max. %
Micro-Deval	N/A	%
Permeability	5	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	71	40 min. %
Pba	0.53	
IOC	0.23	%
Gse	2.670	
Gsb	2.633	
Specimen Weight	4745	g

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

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

Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	6	88.3	85.5 - 91.5
Ndes	50		96.0

Tests on Compressed Mixtures								
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required		% VFA
			of Gmm	% Density Required		Design / Field	Design / Field	
4.8	2.333	2.475	94.3	Design / Field	15.6	Design / Field	63.5	% VFA Required
5.3	2.384	2.456	97.1	96.0 / 94.5 - 97.4	14.3	14.5 / 14.0	79.7	72 - 77
5.8	2.384	2.438	97.8		14.7		85.0	

Dust Prop.
 1.4 **Dust Prop. Req.**
 1.3 0.6 - 1.6
 1.2

ITS (PSI) 102.9 N/A min.
TSR 0.99 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 108.4 @ 5.1 % Asphalt Cement

Hamburg Rut Test Depth (mm) 3.78 12.50 max. @ 10,000 cycles

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

Comments: _____

Last Modified By: Schratwieser, Edward P. eschratw
 (User Name and User ID)

Date: 9/24/2014
 (mm/dd/yyyy)