Version: V03.40

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)

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

T & G Const Co P/S # m00566
(Producer/Supplier Name and Producer/Supplier Code)

WS4c00931790400
(Mix ID)

T & G Const Co #P2 (Portable-Porter Hill) - 400TPH PLANT ID # m00566-02
(Plant Name and Plant 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
Scrns.	Dolese Co. (Richards Spur, OK) P/S # m002761601	25
Scrns.	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	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)				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
Producer/Supplier:													
	5/8" Chips	3/8" Chips	Scrns.	Scrns.	Sand (Unlisted Source)								
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

	°F (°C)	Required
Mix temperature @ discharge from mixer:	275 (135)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	260 (127)	
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	88.3	85.5 - 91.5
Ndes	50		96.0

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 Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.333	2.475	94.3	Design / Field	15.6	Design / Field	63.5	
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.	Dust Prop. Req.
1.4	0.6 - 1.6
1.3	
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: Similar to WS4c00931490100 (Plant Change) ksuitor 10/25/17

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

Date: 10/25/2017
(mm/dd/yyyy)