



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 76-28 OK) Mat'l. Code: asco010

Insoluble ID: I1

(Material Full Name and Material Code)

(Design Type and Design Type ID)

T & G Const Co P/S # m00566

WS4c00931700100

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

T & G Const Co #2 (Portable-Porter Hill) - 400TPH PLANT ID # m00566-02

(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Martin-Marietta (Snyder, OK) P/S # m002323802	26
3/8" Chips	Dolese Co. (Richards Spur, OK) P/S # m002761601	20
C-33 Scrns.	Martin-Marietta (Snyder, OK) P/S # m002323802	17
Scrns.	Dolese Co. (Richards Spur, OK) P/S # m002761601	25
Sand (Unlisted Source)	T & G Sand Pit (Headrick, Ok.)	12
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 76-28 OK, acem001, Valero (Ardmore, OK), m00352 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	Producer/Supplier:						Comb. Agg.	Requirements			% Tol. (±)
	Martin-Marietta (Snyder, OK) P/S # m002323802	Dolese Co. (Richards Spur, OK) P/S # m002761601	Martin-Marietta (Snyder, OK) P/S # m002323802	Dolese Co. (Richards Spur, OK) P/S # m002761601	T & G Sand Pit (Headrick, 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)	93	100	100	100	100	98	98	91	100	7	
3/8 in (9.5 mm)	61	96	100	100	100	89	89	82	96	7	
#4 (4.75 mm)	10	25	97	84	100	57	57	50	64	7	
#8 (2.36 mm)	3	3	75	55	99	40	40	35	45	5	
#16 (1.18 mm)	2	2	46	35	98	29	29	25	33	4	
#30 (.600 mm)	1	1	24	24	90	21	21	17	25	4	
#50 (.300 mm)	1	1	9	17	44	12	12	8	16	4	
#100 (.150 mm)	1	1	3	13	7	5	5	2	8	3	
#200 (.075 mm)	0.6	1.0	1.0	10.5	0.8	3.2	3.2	1.2	5.2	2	
AC Content %						5.4	5.4	5.0	5.8	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	8	87.6	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates	Required	Units
Durability Index	79	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	2	10 max. %
Fractured Faces	100/100	98/95 min. %
Insoluble Residue	51.4	40 min. %
LA Abrasion	25	40 max. %
Micro-Deval	12.7	25 max. %
Permeability	5	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	82	50 min. %
Pba	0.6	%
IOC	0.17	%
Gse	2.657	
Gsb	2.616	
Specimen Weight	4725	g

Tests on Compressed Mixtures								
%AC	Gmm	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.8	2.319	2.464	94.1	Design / Field	15.6	Design / Field	62.2	72 - 77
5.3	2.335	2.446	95.5	96.0 / 94.5 - 97.4	15.5	14.5 / 14.0	71.0	
5.8	2.364	2.427	97.4	14.9			82.6	

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

Hamburg Rut Test Depth (mm) 6.23 12.50 max. @ 20,000 cycles

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

Comments:

Last Modified By:

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(User Name and User ID)

Date:

3/1/2017
(mm/dd/yyyy)