



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 64-22 OK) Mat'l. Code: asco012

Insoluble ID: I1

(Material Full Name and Material Code)

(Design Type and Design Type ID)

J.O.B. Const Co P/S # m00562

WS4c00931501701

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

J.O.B. Const Co (Portable - Sallisaw) - 400TPH PLANT ID # m00562-04

(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	APAC-Central #018 (Spiro, OK) P/S # m002484003	15
1/2" Chips	APAC-Central #018 (Spiro, OK) P/S # m002484003	30
Scrns.	APAC-Central #018 (Spiro, OK) P/S # m002484003	40
Sand (Unlisted Source)	Hoffman Sand (Sallisaw, OK)	15
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, HollyFrontier (Catoosa, OK), m01028 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	Producer/Supplier:				Sand (Unlisted Source)	Comb. Agg.	Tol. (%)		
	APAC-Central #018 (Spiro, OK) P/S # m002484003	APAC-Central #018 (Spiro, OK) P/S # m002484003	APAC-Central #018 (Spiro, OK) P/S # m002484003	Hoffman Sand (Sallisaw, OK)			JMF	Min.	Max.
3/4 in (19 mm)	100	100	100	100	100	100	100	100	0
1/2 in (12.5 mm)	41	100	100	100	91	91	84	98	7
3/8 in (9.5 mm)	11	89	100	99	83	83	76	90	7
#4 (4.75 mm)	3	23	89	88	56	56	49	63	7
#8 (2.36 mm)	3	5	59	75	37	37	32	42	5
#16 (1.18 mm)	2	3	44	63	28	28	24	32	4
#30 (.600 mm)	1	3	36	49	23	23	19	27	4
#50 (.300 mm)	1	2	32	32	18	18	14	22	4
#100 (.150 mm)	1	1	26	9	12	12	9	15	3
#200 (.075 mm)	0.5	1.2	17.0	2.2	7.6	7.6	5.6	9.6	2
AC Content %					5.2	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	6	90.2	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	70	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	10	max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	90.8	30 min. %
LA Abrasion	28.2	40 max. %
Micro-Deval	13.4	N/A %
Permeability	5.1	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	54	40 min. %
Pba	0.54	%
IOC	0.65	%
Gse	2.547	
Gsb	2.513	
Specimen Weight	4650	g

Tests on Compressed Mixtures								
%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.7	2.251	2.377	94.7	94.7	14.6	14.6	63.7	72 - 77
5.2	2.266	2.360	96.0	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	72.4	
5.7	2.295	2.344	97.9		13.9		84.9	

Dust Prop.	1.8	Dust Prop. Req. 0.6 - 1.6	ITS (PSI)	165.9	N/A min.
	1.6		TSR	0.84	0.80 / 0.75 min. (Design / Field)
	1.5		Compacted Wt. (lbs/sy/1" thick) =	103.5	@ 5.2 % Asphalt Cement

x 1st JMF Revision

Hamburg Rut Test Depth (mm) 1.83 12.50 max. @ 10,000 cycles

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

Comments: Similar to WS4c00931490301 (Plant ID Change)
AC Content Revision by Contractor: 05.24.2017

Last Modified By: Williams, Bobby Ray bwilli01
(User Name and User ID)

Date: 5/24/2017
(mm/dd/yyyy)