



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)
 J.O.B. Const Co P/S # m00562
 (Producer/Supplier Name and Producer/Supplier Code)
 J.O.B. Const Co (Portable - Sallisaw) - 400TPH PLANT ID # m00562-04
 (Plant Name and Plant ID)

Insoluble - Recycled ID: I2
 (Design Type and Design Type ID)
 WS4qc0101296201
 (Mix ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	Arkholia Sand & Gravel (Spiro, OK) P/S # m002484003	15
1/2" Chips	Arkholia Sand & Gravel (Spiro, OK) P/S # m002484003	30
Scrns.	Arkholia Sand & Gravel (Spiro, OK) P/S # m002484003	20
Sand (Unlisted Source)	Hoffman Sand (Sallisaw, OK)	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25
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:						Comb. Agg.	Tol. (%)			
	Arkholia Sand & Gravel (Spiro, OK) P/S # m002484003	Arkholia Sand & Gravel (Spiro, OK) P/S # m002484003	Arkholia Sand & Gravel (Spiro, OK) P/S # m002484003	Hoffman Sand (Sallisaw, OK)	Contractor / Project Site P/S # Contractor			JMF	Min.	Max.	(±)
3/4 in (19 mm)	100	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	41	100	100	100	100	91	91	84	98	7	
3/8 in (9.5 mm)	11	89	100	99	96	82	82	75	89	7	
#4 (4.75 mm)	3	23	89	88	80	54	45	38	52	7	
#8 (2.36 mm)	3	5	59	75	60	36	34	29	39	5	
#16 (1.18 mm)	2	3	44	63	49	29	29	25	33	4	
#30 (.600 mm)	1	3	36	49	38	23	23	19	27	4	
#50 (.300 mm)	1	2	32	32	30	18	18	14	22	4	
#100 (.150 mm)	1	1	26	9	17	11	11	8	14	3	
#200 (.075 mm)	0.5	1.2	17.0	2.2	8.5	6.2	6.2	4.2	8.2	2	
AC Content %					5.3	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

Mix temperature @ discharge from mixer: 275 (135) °F (°C) Required ± 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	89.2	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	77	30 min. %
LA Abrasion	28.2	40 max. %
Micro-Deval	13.4	N/A %
Permeability	7.6	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	52	40 min. %
Pba	1.21	
IOC	0.38	%
Gse	2.579	
Gsb	2.502	
Specimen Weight	4650	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.9	2.262	2.397	94.4	Design / Field	14.0	Design / Field	60.0
5.4	2.283	2.379	96.0	96.0 / 94.5 - 97.4	13.7	14.5 / 14.0	70.8
5.9	2.302	2.362	97.5		13.4		81.3

ITS (PSI) 240.1 N/A min.
 TSR 0.90 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 104.7 @ 5.4 % Asphalt Cement
 4.1 % New Asphalt Cement

x 1st JMF Revision

Hamburg Rut Test Depth (mm) 1.32 12.50 max. @ 10,000 cycles

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

Comments: _____

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 (User Name and User ID)

Date: 12/2/2014
 (mm/dd/yyyy)