



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 70-28 OK) Mat'l. Code: asco011

Insoluble ID: I1

(Material Full Name and Material Code)

(Design Type and Design Type ID)

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

S4c00931801300

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

J.O.B. Const Co #27-4 (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	20
1/2" Chips	APAC-Central #018 (Spiro, OK) P/S # m002484003	20
Coarse Scrms.	APAC-Central #018 (Spiro, OK) P/S # m002484003	45
Sand (Unlisted Source)	Arkansas River Sand Brayden Bottoms, OK	15

Asphalt Cement:

Asphaltic Cement Type PG 70-28 OK, acem002, Lion Oil Co. (Muskogee, OK), m00511

(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	Arkansas River Sand Brayden Bottoms, OK			JMF	Min.	Max.	%
3/4" Chips	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	63	100	100	100	93	93	86	100	7	
3/8 in (9.5 mm)	34	85	100	98	84	84	77	91	7	
#4 (4.75 mm)	6	17	97	88	61	61	54	68	7	
#8 (2.36 mm)	3	3	67	75	43	43	38	48	5	
#16 (1.18 mm)	2	3	46	63	31	31	27	35	4	
#30 (.600 mm)	2	3	36	49	25	25	21	29	4	
#50 (.300 mm)	2	3	30	32	19	19	15	23	4	
#100 (.150 mm)	1	1	20	9	11	11	8	14	3	
#200 (.075 mm)	1.4	1.3	7.0	2.2	4.0	4.0	2.0	6.0	2	
AC Content %					5.7	5.7	5.3	6.1	0.4	

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

Mix temperature @ discharge from mixer: 325 (163) ± 20 °F (± 10 °C) **Required**
 Optimum roadway compaction temperature: 305 (152)
 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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	% Density		
	# Gyr.	of Gmm	% Density Required
Nini	7	89.9	85.5 - 90.5
Ndes	65		96.0

Tests on Aggregates	Required	Units
Contabro	N/A	%
Durability Index	80	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	10	max. %
Fractured Faces	100/100	95/90 min. %
Insoluble Residue	92	40 min. %
LA Abrasion	33	40 max. %
Micro-Deval	16.3	N/A %
Permeability	5.5	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	57	45 min. %
IOC	0.58	%
Gse	2.564	
Gsb	2.498	
Specimen Weight	4650	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required	% VFA
			of Gmm	% Density Required			
5.2	2.223	2.374	93.6	Design / Field	15.6	Design / Field	59.0
5.7	2.263	2.357	96.0	96.0 / 94.5 - 97.4	14.6	14.5 / 14.0	72.6
6.2	2.281	2.341	97.4		14.3		81.8

Dust Prop.
 1.0 **Dust Prop. Reg.**
 0.9 0.6 - 1.6
 0.8

ITS (PSI) 119 N/A min.
TSR 0.96 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 103.7 @ 5.7 % Asphalt Cement

Hamburg Rut Test Depth (mm) 1.92 12.50 max. @ 15,000 cycles

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

Comments:

Last Modified By: McComack, Hunter J. hmccomac
 (User Name and User ID)

Date: 9/12/2018
 (mm/dd/yyyy)