Version: V03.50

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)

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

Evans & Assoc Const Co P/S # m00557
(Producer/Supplier Name and Producer/Supplier Code)

S4pv0111800100
(Mix ID)

Evans & Associates #5671 (Ponca City, OK) - 400TPH PLANT ID # m00557-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	11
5/8" Chips	Martin-Marietta (Snyder, OK) P/S # m002323802	18
1/2" Chips	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	10
Scrns.	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	24
Drag Sand	Blevins Asphalt Const. Co. (Ottawa Co., OK) P/S # m009195810	13
Sand	Sober Sand Co. (Ponca City, OK) P/S # m005373601	13
Fine R.A.P.	Contractor / Project Site P/S # Contractor	11

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Valero (Arkansas City, KS), m00512
(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Sieve Size	Producer/Supplier: APAC-Central #066 (Pawhuska, OK) P/S # m001505703 — 3/4" Chips	Martin-Marietta (Snyder, OK) P/S # m002323802 — 5/8" Chips	APAC-Central #066 (Pawhuska, OK) P/S # m001505703 — 1/2" Chips	APAC-Central #066 (Pawhuska, OK) P/S # m001505703 — Scrns.	Blevins Asphalt Const. Co. (Ottawa Co., OK) P/S # m009195810 — Drag Sand	Sober Sand Co. (Ponca City, OK) P/S # m005373601 — Sand	Contractor / Project Site P/S # Contractor — Fine R.A.P.		Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100	100	100	100		100	**100**	100	100	0
1/2 in (12.5 mm)	62	90	100	100	100	100	97		94	**94**	87	100	7
3/8 in (9.5 mm)	32	67	87	100	100	100	92		84	**84**	77	91	7
#4 (4.75 mm)	6	16	10	99	98	97	68		61	**61**	54	68	7
#8 (2.36 mm)	2	4	3	69	76	84	49		44	**44**	39	49	5
#16 (1.18 mm)	1	2	2	45	48	66	36		30	**30**	26	34	4
#30 (.600 mm)	1	2	2	31	28	46	27		21	**21**	17	25	4
#50 (.300 mm)	1	1	2	22	16	24	18		13	**13**	9	17	4
#100 (.150 mm)	1	1	2	17	11	4	11		8	**8**	5	11	3
#200 (.075 mm)	1.0	0.9	1.4	14.6	8.1	0.1	7.8		5.8	**5.8**	3.8	7.8	2
AC Content %							4.7		5.3	**5.3**	4.9	5.7	0.4

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

	°F (°C)	Required
Mix temperature @ discharge from mixer:	305 (152)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	290 (143)	
Laboratory mixing temperature:	325 (163)	
Laboratory compaction temperature:	300 (149)	

Tests on Asphalt Cement	Found
Specific Gravity @ 77 ° F	1.0100

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

Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	6	88.4	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Contabro		N/A		%
Durability Index	76	40	min.	%
F.A.A. %U	44	N/A		%
Flat and Elongated		10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	36	30	min.	%
LA Abrasion	24	40	max.	%
Micro-Deval	12.3	N/A		%
Permeability	2.3	12.5	max.	10^{-5}cm/s
Sand Equivalent	85	40	min.	%
IOC	0.33			%
Gse	2.654			
Gsb	2.599			
Specimen Weight	4750			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.5	2.321	2.473	93.9	Design / Field	14.7	Design / Field	58.5	72 - 77
5.0	2.339	2.454	95.3	96.0 / 94.5 - 97.4	14.5	14.5 / 14.0	67.6	
5.5	2.355	2.436	96.7		14.4		77.1	

Dust Prop.
1.6
1.4
1.2

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 200.6 N/A min.
TSR 0.86 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 107.5 @ 5.3 % Asphalt Cement
4.8 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 0.78 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 7/26/2018
(mm/dd/yyyy)