Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 64-22 OK) Mat'l. Code: asco009
(Material Full Name and Material Code)

Binder - Recycled ID: B2
(Design Type and Design Type ID)

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

S3pv0441301401
(Mix ID)

Evans & Assoc Const Co (Ponca City, OK) - 400TPH PLANT ID # m00557-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
1" Rock	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	24
1/2" Chips	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	22
Scrns.	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	9
Drag Sand	Mine Chat @ Tri City Area P/S # MineChat	15
Sand	Sober Sand Co. (Ponca City, OK) P/S # m005373601	10
Fine R.A.P.	Contractor / Project Site P/S # Contractor	20

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)

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

Sieve Size	APAC-Central #066 @ Pawhuska, OK P/S # m001505703 (1" Rock)	APAC-Central #066 @ Pawhuska, OK P/S # m001505703 (1/2" Chips)	APAC-Central #066 @ Pawhuska, OK P/S # m001505703 (Scrns.)	Mine Chat @ Tri City Area P/S # MineChat (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. (±)	
1 in (25 mm)	100	100	100	100	100	100			100	100	100	100	0	
3/4 in (19 mm)	86	100	100	100	100	100			97	97	90	100	7	
1/2 in (12.5 mm)	20	100	100	100	100	100			81	85	78	92	7	x
3/8 in (9.5 mm)	7	89	100	100	100	99			75	77	70	84	7	x
#4 (4.75 mm)	4	7	99	100	97	79			52	52	45	59	7	
#8 (2.36 mm)	3	1	71	87	85	59			41	41	36	46	5	
#16 (1.18 mm)	2	1	42	50	65	45			27	27	23	31	4	
#30 (.600 mm)	2	1	28	26	46	35			19	19	15	23	4	
#50 (.300 mm)	2	1	21	12	22	27			12	12	8	16	4	
#100 (.150 mm)	2	1	17	6	3	18			7	7	4	10	3	
#200 (.075 mm)	1.8	1.0	14.0	2.0	1.0	14.0			5.1	5.1	3.1	7.1	2	
AC Content %						4.8			4.7	4.7	4.3	5.1	0.4	

	°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

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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
Durability Index	74	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated		10	max.	%
Fractured Faces	97/100	85/80	min.	%
Insoluble Residue	3.4	N/A		%
LA Abrasion	24	40	max.	%
Micro-Deval	15.3	N/A		%
Permeability	9.6	12.5	max.	10^{-5}cm/s
Sand Equivalent	77	40	min.	%
IOC	0.37			%
Gse	2.642			
Gsb	2.597			
Specimen Weight	4725			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.2	2.309	2.474	93.3	96.0 / 94.5 - 97.4	14.8	13.5 / 13.0	54.7	70 - 75
4.7	2.357	2.456	96.0		13.5		70.4	
5.2	2.376	2.437	97.5		13.3		81.2	

Dust Prop.	Dust Prop. Req.
1.4	0.6 - 1.6
1.2	
1.1	

ITS (PSI) 95.7 N/A min.
TSR 0.80 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 108.0 @ 4.7 % Asphalt Cement
3.7 % New Asphalt Cement

x 1st JMF Revision

Hamburg Rut Test Depth (mm) 2.63 12.50 max. @ 10,000 cycles

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

Comments: REVISED (GRAD.) Effective 11/13/13 per contractor's request.

Last Modified By: Schratwieser, Edward P. eschratw
(User Name and User ID)

Date: 11/13/2013
(mm/dd/yyyy)