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)

APAC-Oklahoma P/S # m00552
(Producer/Supplier Name and Producer/Supplier Code)

S3qc0061500100
(Mix ID)

APAC-OK (Pawhuska, OK) - 400TPH PLANT ID # m00552-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
1" Rock	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	21
1/2" Chips	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	16
Man. Sand	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	29
Sand	Sober Sand Co. (Ponca City, OK) P/S # m005373601	11
Fine R.A.P.	Contractor / Project Site P/S # Contractor	23

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Lion Oil Co. (Muskogee, OK), m00511
(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	1" Rock	1/2" Chips	Man. Sand	Sand	Fine R.A.P.				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
Producer/Supplier:	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	APAC-Central #066 @ Pawhuska, OK P/S # m001505703	Sober Sand Co. (Ponca City, OK) P/S # m005373601	Contractor / Project Site P/S # Contractor								
1 in (25 mm)	100	100	100	100	100				100	**100**	100	100	0
3/4 in (19 mm)	85	100	100	100	100				97	**97**	90	100	7
1/2 in (12.5 mm)	21	100	100	100	97				83	**83**	76	90	7
3/8 in (9.5 mm)	7	89	100	100	92				77	**77**	70	84	7
#4 (4.75 mm)	4	7	93	96	73				56	**56**	49	63	7
#8 (2.36 mm)	3	2	52	84	53				37	**37**	32	42	5
#16 (1.18 mm)	2	2	28	64	38				25	**25**	21	29	4
#30 (.600 mm)	2	2	14	44	28				16	**16**	12	20	4
#50 (.300 mm)	2	2	7	21	20				10	**10**	6	14	4
#100 (.150 mm)	2	2	5	3	14				6	**6**	3	9	3
#200 (.075 mm)	1.8	1.6	4.3	0.6	12.1				4.7	**4.7**	2.7	6.7	2
AC Content %					5.0				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	88.3	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	71	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	0.3	N/A		%
LA Abrasion	24	40	max.	%
Micro-Deval	14.3	N/A		%
Permeability	8.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	72	40	min.	%
IOC	0.34			%
Gse	2.651			
Gsb	2.638			
Specimen Weight	4750			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.3	2.352	2.478	94.9	96.0 / 94.5 - 97.4	14.7	13.5 / 13.0	65.3	70 - 75
4.8	2.362	2.459	96.1		14.8		73.6	
5.3	2.370	2.441	97.1		14.9		80.5	

Dust Prop.
1.1
1.0
0.9

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 124.3 N/A min.
TSR 0.85 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 108.3 @ 4.7 % Asphalt Cement
3.5 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.71 12.50 max. @ 10,000 cycles

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

Comments:

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

Date: 3/17/2015
(mm/dd/yyyy)