



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S5 (PG 64-22 OK) Mat'l. Code: asco015
 (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)

S5pv0111800200
 (Mix ID)

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

Aggregate	Producer/Supplier	% USED
1/2" Chips	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	12
Mine Chat	Bingham S & G (Baxter Springs, KS) P/S # m001578009	25
Man. Sand	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	10
Scrns.	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	30
Sand	Sober Sand Co. (Ponca City, OK) P/S # m005373601	12
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)
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Sieve Size	Producer/Supplier:							Comb. Agg.	Requirements			
	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	Bingham S & G (Baxter Springs, KS) P/S # m001578009	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			JMF	Min.	Max.	% Tol. (±)
1/2" Chips	100	100	100	100	100	97	100	100	100	100	0	
Mine Chat	87	100	100	100	100	94	98	98	91	100	7	
Man. Sand	10	38	95	99	97	72	69	69	62	76	7	
Scrns.	3	5	49	69	84	50	43	43	38	48	5	
Sand	2	2	25	45	66	38	29	29	25	33	4	
Fine R.A.P.	2	1	12	31	46	30	20	20	16	24	4	
	2	1	5	22	24	22	13	13	9	17	4	
	1	1	2	17	4	14	8	8	5	11	3	
	1.4	0.5	0.3	14.6	0.1	10.2	5.8	5.8	3.8	7.8	2	
AC Content %						4.7	6.1	6.1	5.7	6.5	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

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Tests on Compressed Mixtures (@ Design AC)			
	% Density		
	# Gyr.	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	73	40 min. %
F.A.A. %U	45	N/A %
Flat and Elongated	0	10 max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	41.8	30 min. %
LA Abrasion	33	40 max. %
Micro-Deval	18.9	N/A %
Permeability	2.6	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	85	40 min. %
IOC	0.30	%
Gse	2.651	
Gsb	2.615	
Specimen Weight	4660	g

Tests on Compressed Mixtures							
	% Density			% VMA	% VMA Required	% VFA	% VFA Required
%AC	Gmb	Gmm	of Gmm	Design / Field	Design / Field	Design / Field	73 - 78
5.6	2.305	2.430	94.9	16.8	15.5 / 15.0	69.6	
6.1	2.326	2.412	96.4	96.0 / 94.5 - 97.4	16.5	78.2	
6.6	2.349	2.394	98.1	16.1		88.2	

Dust Prop.
 1.1 Dust Prop. Req.
 1.0 0.6 - 1.6
 1.0

ITS (PSI) 101.4 N/A min.
TSR 0.88 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 106.1 @ 6.1 % Asphalt Cement
 5.6 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 6.07 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 Date: 10/18/2018
 (User Name and User ID) (mm/dd/yyyy)