Version: V03.50

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S6 (PG 70-28 OK) Mat'l. Code: asco017
(Material Full Name and Material Code)

Insoluble ID: I1
(Design Type and Design Type ID)

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

S6pv0111800600
(Mix ID)

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

Aggregate	Producer/Supplier	% USED
Mine Chat	Bingham S & G (Baxter Springs, KS) P/S # m001578009	20
Man. Sand	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	13
Scrns.	APAC-Central #066 (Pawhuska, OK) P/S # m001505703	43
Drag Sand	Blevins Asphalt Const. Co. (Ottawa Co., OK) P/S # m009195810	12
Sand	Sober Sand Co. (Ponca City, OK) P/S # m005373601	12

Asphalt Cement: Asphaltic Cement Type PG 70-28 OK, acem002, Valero (Halstead, KS), m00964
(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	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	Blevins Asphalt Const. Co. (Ottawa Co., OK) P/S # m009195810	Sober Sand Co. (Ponca City, OK) P/S # m005373601				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
	Mine Chat	Man. Sand	Scrns.	Drag Sand	Sand								
3/8 in (9.5 mm)	100	100	100	100	100				100	**100**	100	100	0
#4 (4.75 mm)	38	95	99	98	95				86	**86**	79	93	7
#8 (2.36 mm)	8	49	69	76	81				56	**56**	51	61	5
#16 (1.18 mm)	2	25	45	48	61				36	**36**	32	40	4
#30 (.600 mm)	1	12	31	28	41				23	**23**	19	27	4
#50 (.300 mm)	1	5	22	16	19				15	**15**	11	19	4
#100 (.150 mm)	1	2	17	11	3				9	**9**	6	12	3
#200 (.075 mm)	0.5	0.3	14.6	8.1	0.9				7.5	**7.5**	5.5	9.5	2
AC Content %									6.1	**6.1**	5.7	6.5	0.4

	°F (°C)	Required
Mix temperature @ discharge from mixer:	325 (163)	± 20 °F (± 10 °C)
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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Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	7	88.0	85.5 - 90.5
Ndes	65		96.0

Tests on Aggregates		Required		Units
Contabro		N/A		%
Durability Index	73	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	95/90	min.	%
Insoluble Residue	48.2	40	min.	%
LA Abrasion	33	40	max.	%
Micro-Deval	18.9	N/A		%
Permeability	1.8	12.5	max.	10^{-5}cm/s
Sand Equivalent	87	45	min.	%
IOC	0.43			%
Gse	2.658			
Gsb	2.613			
Specimen Weight	4625			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
5.8	2.304	2.428	94.9		16.9		69.8	
6.3	2.334	2.410	96.8	96.0 / 94.5 - 97.4	16.3	16.5 / 16.0	80.4	75 - 79
6.8	2.349	2.393	98.2		16.2		88.9	

Dust Prop.
1.4
1.3
1.2

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 126.9 N/A min.

TSR 0.90 0.80 / 0.75 min. (Design / Field)

Compacted Wt. (lbs/sy/1" thick) = 106.3 @ 6.1 % Asphalt Cement

Hamburg Rut Test Depth (mm) 1.79 12.50 max. @ 15,000 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: 10/15/2018
(mm/dd/yyyy)