Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 70-28 OK) Mat'l. Code: asco011
(Material Full Name and Material Code)

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

Paving Materials of Southern Oklahoma, LLC P/S # m00697
(Producer/Supplier Name and Producer/Supplier Code)

S4qc0101680900
(Mix ID)

Pav. Matls. of Southern Ok. (Davis, OK)- 400 TPH PLANT ID # m00697-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	20
1/2" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	26
Stone Sand	Dolese Co (Davis, OK) P/S # m002745002	28
Scrns.	Dolese Co (Davis, OK) P/S # m002745002	17
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	9

Asphalt Cement: Asphaltic Cement Type PG 70-28 OK, acem002, Valero (Ardmore, OK), m00352
(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-

Producer/Supplier:	Dolese Co (Davis, OK) P/S # m002745002	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Dolese Co (Davis, OK) P/S # m002745002	Dolese Co (Davis, OK) P/S # m002745002	General Materials Inc (Oklahoma City, OK) P/S # m009215515								
Sieve Size	5/8" Chips	1/2" Chips	Stone Sand	Scrns.	Sand				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100	100				100	100	100	100	0
1/2 in (12.5 mm)	93	100	100	100	100				99	99	92	100	7
3/8 in (9.5 mm)	55	84	100	100	100				87	87	80	94	7
#4 (4.75 mm)	5	21	98	78	100				56	56	49	63	7
#8 (2.36 mm)	2	2	76	50	99				40	40	35	45	5
#16 (1.18 mm)	1	1	38	35	97				26	26	22	30	4
#30 (.600 mm)	1	1	20	25	91				19	19	15	23	4
#50 (.300 mm)	1	1	9	20	59				12	12	8	16	4
#100 (.150 mm)	1	1	7	16	12				6	6	3	9	3
#200 (.075 mm)	0.6	1.3	4.5	12.8	3.5				4.2	4.2	2.2	6.2	2
AC Content %									4.9	4.9	4.5	5.3	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

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	7	89.4	85.5 - 90.5
Ndes	65		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	95/90	min.	%
Insoluble Residue	44.2	40	min.	%
LA Abrasion	28	40	max.	%
Micro-Deval	13.9	N/A		%
Permeability	3.2	12.5	max.	10^{-5}cm/s
Sand Equivalent	78	45	min.	%
IOC	0.24			%
Gse	2.708			
Gsb	2.677			
Specimen Weight	4800			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	% VFA Required
4.1	2.355	2.533	93.0	Design / Field	15.6	Design / Field	55.1	
4.9	2.401	2.502	96.0	96.0 / 94.5 - 97.4	14.7	14.5 / 14.0	72.8	72 - 77
5.1	2.420	2.494	97.0		14.2		78.9	

Dust Prop.	Dust Prop. Req.
1.1	0.6 - 1.6
0.9	
0.9	

ITS (PSI) 103.2 N/A min.
TSR 0.90 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.1 @ 4.9 % Asphalt Cement

Hamburg Rut Test Depth (mm) 4.90 #N/A

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

Comments:

Last Modified By: Suitor, Kevin ksuitor
(User Name and User ID)

Date: 8/22/2017
(mm/dd/yyyy)