



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)
 Highway Contr Co P/S # m00559
 (Producer/Supplier Name and Producer/Supplier Code)
 Highway Contr Co #8828 (Guymon, OK)- 250TPH PLANT ID # m00559-03
 (Plant Name and Plant ID)

Insoluble ID: I1
 (Design Type and Design Type ID)
 S4pv0441800801
 (Mix ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	Prowers Aggregate West Farm Pit (Lamar, CO) P/S # m010578112	12
3/4" 3A Chips	Prowers Aggregate West Farm Pit (Lamar, CO) P/S # m010578112	42
Scrns.	Prowers Aggregate West Farm Pit (Lamar, CO) P/S # m010578112	30
Sand	Prowers Aggregate West Farm Pit (Lamar, CO) P/S # m010578112	15
Hydrated Lime	U.S. Lime Co. - St. Clair (Marble City, OK) P/S # m00316	1

Asphalt Cement:	Asphaltic Cement Type PG 70-28 OK, acem002, Coastal Energy (Clinton, OK), m01042 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)
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Sieve Size	Producer/Supplier:						Comb. Agg.	% Tol. (±)			
	3/4" Chips	3/4" 3A Chips	Scrns.	Sand	Hydrated Lime	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)	65	90	100	100	100	92	92	85	99	7	
3/8 in (9.5 mm)	34	78	100	100	100	83	83	76	90	7	
#4 (4.75 mm)	4	52	82	99	100	63	63	56	70	7	
#8 (2.36 mm)	2	37	55	84	100	46	46	41	51	5	
#16 (1.18 mm)	1	29	40	64	100	35	35	31	39	4	
#30 (.600 mm)	1	24	31	42	100	27	27	23	31	4	
#50 (.300 mm)	1	19	24	19	100	19	19	15	23	4	
#100 (.150 mm)	1	12	16	4	98	12	12	9	15	3	
#200 (.075 mm)	0.8	6.9	10.3	0.5	95.0	7.1	7.1	5.1	9.1	2	
AC Content %						5.9	5.5	5.1	5.9	0.4	

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

Mix temperature @ discharge from mixer: 325 (163) ± 20 °F (± 10 °C) Required
 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

Tests on Compressed Mixtures (@ Design AC)			
	% Density		
	# Gyr.	of Gmm	% Density Required
Nini	7	88.6	85.5 - 90.5
Ndes	65		96.0

Tests on Aggregates	Required	Units
Contabro	N/A	%
Durability Index	90	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	1	10 max. %
Fractured Faces	95/95	95/90 min. %
Insoluble Residue	97.5	40 min. %
LA Abrasion	30	40 max. %
Micro-Deval	6.7	N/A %
Permeability	2	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	83	45 min. %
IOC	-0.04	%
Gse	2.643	
Gsb	2.546	
Specimen Weight	4700	g

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Tests on Compressed Mixtures						
	% Density					
%AC	Gmb	Gmm	of Gmm	% Density Required	% VMA	% VMA Required
				Design / Field		Design / Field
5.5	2.281	2.427	94.0	96.0 / 94.5 - 97.4	15.3	60.8
6.0	2.320	2.409	96.3		14.3	74.1
6.5	2.334	2.392	97.6		14.3	83.2

Dust Prop. 1.7, 1.5, 1.4
 Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 106.8 N/A min.
 TSR 0.86 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 106.8 @ 5.9 % Asphalt Cement

Hamburg Rut Test Depth (mm) 4.06 12.50 max. @ 15,000 cycles

x 1st JMF Revision

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

Comments: Revised JMF by contractor: Effective 9-19-2018

Last Modified By: McComack, Hunter J. hmccomac
 (User Name and User ID)

Date: 9/26/2018
 (mm/dd/yyyy)