



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 64-22 OK) Mat'l. Code: asco012
 (Material Full Name and Material Code)
 J.O.B. Const Co P/S # m00562
 (Producer/Supplier Name and Producer/Supplier Code)
 J.O.B Const Co #27-2 (Hartshorne) - 350TPH PLANT ID # m00562-02
 (Plant Name and Plant ID)

Binder - Recycled ID: B2
 (Design Type and Design Type ID)
 S4c00931800510
 (Mix ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	33
3/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	10
Scrns.	Dolese Co (Hartshorne, OK) P/S # m002756101	31
Sand	Muskogee Sand - West Plant (Muskogee, OK) P/S # m007067309	11
Fine R.A.P.	Contractor / Project Site P/S # Contractor	15
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)		

Sieve Size	Producer/Supplier:						Comb. Agg.	%			Tol. (±)
	5/8" Chips	3/8" Chips	Scrns.	Sand	Fine R.A.P.	JMF		Min.	Max.		
3/4 in (19 mm)	100	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	95	100	100	100	98	98	98	91	100	7	
3/8 in (9.5 mm)	73	98	100	100	97	90	90	83	97	7	
#4 (4.75 mm)	11	22	99	100	83	60	60	53	67	7	
#8 (2.36 mm)	2	1	75	95	62	44	44	39	49	5	
#16 (1.18 mm)	1	1	53	79	48	33	33	29	37	4	
#30 (.600 mm)	1	1	38	42	37	22	22	18	26	4	
#50 (.300 mm)	1	1	29	10	29	15	15	11	19	4	
#100 (.150 mm)	1	1	13	3	19	8	8	5	11	3	
#200 (.075 mm)	0.8	0.6	12.7	1.2	11.5	6.1	6.1	4.1	8.1	2	
AC Content %					5.3	5.3	5.3	4.9	5.7	0.4	

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

Mix temperature @ discharge from mixer: 305 (152) ± 20 °F (± 10 °C) **Required**
 Optimum roadwasy 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		% Density Required
	# Gyr.	of Gmm	
Nini	6	87.9	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	40	min. %
F.A.A. %U	N/A	%
Flat and Elongated	10	max. %
Fractured Faces	85/80	min. %
Insoluble Residue	N/A	%
LA Abrasion	40	max. %
Micro-Deval	N/A	%
Permeability	12.5	max. 10 ⁻⁵ cm/s
Sand Equivalent	40	min. %
IOC	0.37	%
Gse	2.646	
Gsb	2.610	
Specimen Weight	4625	g

Tests on Compressed Mixtures							
%AC	% Density		% Density Required	% VMA	% VMA Required		% VFA
	Gmb	Gmm			Design / Field	Design / Field	
4.8	2.311	2.455	94.1	15.7	Design / Field	62.4	% VFA Required
5.3	2.336	2.437	95.9	96.0 / 94.5 - 97.4	15.2	14.5 / 14.0	
5.8	2.362	2.419	97.6	14.8		83.8	

ITS (PSI) 202.6 N/A min.
 TSR 0.91 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 107.2 @ 5.3 % Asphalt Cement
 4.5 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.43 12.50 max. @ 10,000 cycles

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

Comments: Similar to S4pv0111201510 (Plant ID Change)

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

Date: 4/24/2018
 (mm/dd/yyyy)