



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 76-28 OK) Mat'l. Code: asco010
 (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 (Hartshorne) - 350TPH PLANT ID # m00562-02
 (Plant Name and Plant ID)

Insoluble ID: I1
 (Design Type and Design Type ID)
 S4qc0101702900
 (Mix ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	Eastern Oklahoma Quarries, LLC (Howe, OK) P/S # m009054006	20
3/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	20
Scrns.	Dolese Co (Hartshorne, OK) P/S # m002756101	27
Man. Sand	APAC-Central #018 (Spiro, OK) P/S # m002484003	25
Sand (Unlisted Source)	Arkansas River Sand Spiro, OK	8
Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, Lion Oil Co. (Muskogee, OK), m00511 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	Producer/Supplier:						Comb. Agg.	% Tol. (±)			
	Eastern Oklahoma Quarries, LLC (Howe, OK) P/S # m009054006	Dolese Co (Hartshorne, OK) P/S # m002756101	Dolese Co (Hartshorne, OK) P/S # m002756101	APAC-Central #018 (Spiro, OK) P/S # m002484003	Arkansas River Sand Spiro, OK			JMF	Min.	Max.	
3/4" Chips	100	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	72	100	100	100	100	94	94	87	100	7	
3/8 in (9.5 mm)	43	95	100	100	100	88	88	81	95	7	
#4 (4.75 mm)	12	13	97	93	100	62	62	55	69	7	
#8 (2.36 mm)	9	6	64	66	99	45	45	40	50	5	
#16 (1.18 mm)	4	2	45	46	98	33	33	29	37	4	
#30 (.600 mm)	3	2	31	37	93	26	26	22	30	4	
#50 (.300 mm)	2	2	22	30	50	18	18	14	22	4	
#100 (.150 mm)	2	1	16	19	8	10	10	7	13	3	
#200 (.075 mm)	1.9	0.7	11.9	8.0	3.4	6.0	6.0	4.0	8.0	2	
AC Content %						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-

°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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	% Density		
	# Gyr.	of Gmm	% Density Required
Nini	8	88.2	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates	Required	Units
Durability Index	74	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	10	max. %
Fractured Faces	100/100	98/95 min. %
Insoluble Residue	52.2	40 min. %
LA Abrasion	33	40 max. %
Micro-Deval	22.6	25 max. %
Permeability	3.6	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	61	50 min. %
IOC	0.65	%
Gse	2.641	
Gsb	2.591	
Specimen Weight	4750	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.8	2.313	2.451	94.4	Design / Field	15.0	Design / Field	62.7
5.3	2.336	2.433	96.0	96.0 / 94.5 - 97.4	14.6	14.5 / 14.0	72.6
5.8	2.367	2.415	98.0		13.9		85.6

Dust Prop.	1.5	Dust Prop. Req. 0.6 - 1.6	ITS (PSI) 126.1	75 min.
	1.3		TSR 0.89	0.80 / 0.75 min. (Design / Field)
	1.2		Compacted Wt. (lbs/sy/1" thick) = 107.0 @ 5.3 % Asphalt Cement	

Hamburg Rut Test Depth (mm) 6.00 12.50 max. @ 20,000 cycles

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

Comments: _____

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 (User Name and User ID)

Date: 9/13/2017
 (mm/dd/yyyy)