



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 (Hartshorne) - 350TPH PLANT ID # m00562-02
 (Plant Name and Plant ID)

Insoluble ID: 11
 (Design Type and Design Type ID)
 WS4qc0101381402
 (Mix ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	Eastern Oklahoma Quarries, LLC (Howe, OK) P/S # m009054006	28
3/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	30
Scrns.	Dolese Co (Hartshorne, OK) P/S # m002756101	27
Sand (Unlisted Source)	Arkansas River (Spiro, OK)	15
Warm Mix Asphalt (WMA) Technology: TEREX (Foaming Process) qual028 Terex Roadbuilding m00801 (Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		
Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, HollyFrontier (Catoosa, OK), m01028 (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	Arkansas River (Spiro, OK)	Sand (Unlisted Source)		JMF	Min.	Max.	% Tol. (±)
3/4 in (19 mm)	100	100	100	100	100	100	100	100	0	
1/2 in (12.5 mm)	63	100	100	100	90	90	83	97	7	
3/8 in (9.5 mm)	30	95	100	100	79	79	72	86	7	
#4 (4.75 mm)	9	25	94	96	50	50	43	57	7	
#8 (2.36 mm)	3	6	64	94	34	34	29	39	5	
#16 (1.18 mm)	2	3	41	91	26	26	22	30	4	
#30 (.600 mm)	2	3	26	79	20	20	16	24	4	
#50 (.300 mm)	1	2	19	31	11	11	7	15	4	
#100 (.150 mm)	1	1	14	4	5	5	2	8	3	
#200 (.075 mm)	0.7	1.2	12.5	0.6	4.0	4.0	2.0	6.0	2	
AC Content %					5.1	5.1	4.7	5.5	0.4	

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

Warm Mix Asphalt (WMA) Additive % 2.0

Mix temperature @ discharge from mixer: °F (°C) Required ± 20 °F (± 10 °C)
 Optimum roadway compaction temperature:
 Laboratory mixing temperature:
 Laboratory compaction temperature:

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	6	87.7	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	66	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	10	max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	49.7	30 min. %
LA Abrasion	30.5	40 max. %
Micro-Deval	20.8	N/A %
Permeability	0.4	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	63	40 min. %
Pba	0.91	
IOC	0.41	%
Gse	2.606	
Gsb	2.546	
Specimen Weight	4650	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
5.0	2.262	2.415	93.7	Design / Field	15.6	Design / Field	59.6
5.5	2.301	2.398	96.0	96.0 / 94.5 - 97.4	14.6	14.5 / 14.0	72.6
6.0	2.313	2.380	97.2		14.6		80.8

Dust Prop.	Dust Prop. Req.
1.0	0.6 - 1.6
0.9	
0.8	

ITS (PSI) 182.1 N/A min.
 TSR 0.82 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 106.1 @ 5.1 % Asphalt Cement

Hamburg Rut Test Depth (mm) 4.38 #N/A

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

Comments:

Last Modified By: Williams, Bobby Ray bwilli01
 (User Name and User ID)

Date: 10/11/2017
 (mm/dd/yyyy)