



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 64-22 OK) Mat'l. Code: asco009

(Material Full Name and Material Code)

Atlas Paving Co Inc P/S # m00296

(Producer/Supplier Name and Producer/Supplier Code)

Atlas Paving (Waterloo Road, Edmond) - 300TPH PLANT ID # m00296-02

(Plant Name and Plant ID)

Binder - Recycled ID: B2

(Design Type and Design Type ID)

S3c00931390900

(Mix ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Davis, OK) P/S # m002745002	15
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	25
3/16" Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	14
Stone Sand	Dolese Co (Davis, OK) P/S # m002745002	10
Sand	General Materials Inc (Oklahoma City, OK) P/S # m009215515	11
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25
Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Valero (Ardmore, OK), m00352		
(Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	#67 Rock	5/8" Chips	3/16" Scrns.	Stone Sand	Sand	Fine R.A.P.	Comb. Agg.	JMF	Min.	Max.	%	
											Tol.	(±)
1 in (25 mm)	100	100	100	100	100	100	100	100	100	100	0	
3/4 in (19 mm)	86	100	100	100	100	100	98	98	91	100	7	
1/2 in (12.5 mm)	37	93	100	100	100	98	88	88	81	95	7	
3/8 in (9.5 mm)	17	62	100	100	100	94	77	77	70	84	7	
#4 (4.75 mm)	2	3	100	99	100	76	55	55	48	62	7	
#8 (2.36 mm)	1	1	77	63	99	60	43	43	38	48	5	
#16 (1.18 mm)	1	1	49	34	98	46	33	33	29	37	4	
#30 (.600 mm)	1	1	33	18	90	37	26	26	22	30	4	
#50 (.300 mm)	1	1	23	10	53	27	17	17	13	21	4	
#100 (.150 mm)	1	1	16	5	12	16	8	8	5	11	3	
#200 (.075 mm)	1.1	0.9	11.8	2.6	1.3	9.6	4.8	4.8	2.8	6.8	2	
AC Content %						5.2	4.5	4.5	4.1	4.9	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 roadway 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		
	# Gyr.	of Gmm	% Density Required
Nini	6	89.8	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	75	40 min. %
F.A.A. %U		N/A %
Flat and Elongated	0	10 max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	5	N/A %
LA Abrasion	25.3	40 max. %
Micro-Deval	16.2	N/A %
Permeability	1.8	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	77	40 min. %
IOC	0.25	%
Gse	2.703	
Gsb	2.668	
Specimen Weight	4915	g

Tests on Compressed Mixtures						
%AC	% Density		% VMA	% VMA Required	% VFA	% VFA Required
	Gmm	of Gmm				
4.3	2.411	2.521	95.6	Design / Field	13.5	Design / Field
4.8	2.423	2.502	96.8	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0
5.3	2.431	2.482	97.9	13.7		76.3 70 - 75
				13.7		84.7

Dust Prop.
1.3 **Dust Prop. Req.** 0.6 - 1.6
1.1
1.0

ITS (PSI) 179.2 N/A min.
TSR 0.83 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.6 @ 4.5 % Asphalt Cement
3.2 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.40 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By:

Schratwieser, Edward P. eschratw
(User Name and User ID)

Date:

8/26/2015
(mm/dd/yyyy)