



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)
 S3c00931702000
 (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	Producer/Supplier:							Comb. Agg.	% Tol. (±)			
	#67 Rock	5/8" Chips	3/16" Scrns.	Stone Sand	Sand	Fine R.A.P.	JMF		Min.	Max.		
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	100	88	88	81	95	7	
3/8 in (9.5 mm)	17	62	100	100	100	100	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-

°F (°C) Required
 Mix temperature @ discharge from mixer: 305 (152) ± 20 °F (± 10 °C)
 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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	% 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	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.3	2.411	2.521	95.6	Design / Field	13.5	Design / Field	67.4
4.8	2.423	2.502	96.8	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0	76.3
5.3	2.431	2.482	97.9		13.7		84.7

Dust Prop. 1.3 Dust Prop. Req. 0.6 - 1.6
 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: Similar to S3c00931390900 (Plant ID Change)

Last Modified By: Suitor, Kevin ksuitor
 (User Name and User ID)

Date: 12/15/2017
 (mm/dd/yyyy)