



# Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 76-28 OK) Mat'l. Code: asco007  
 (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)  
 S3c00931800200  
 (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	28
3/16" Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	15
Stone Sand	Dolese Co (Davis, OK) P/S # m002745002	15
Sand (Unlisted Source)	GMI (MacAuthor Pit) (OKC, OK)	12
Fine R.A.P.	Contractor / Project Site P/S # Contractor	15
<b>Asphalt Cement:</b> Asphaltic Cement Type PG 76-28 OK, acem001, 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 (Unlisted Source)	Fine R.A.P.	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	100	88	88	81	95	7	
3/8 in (9.5 mm)	17	62	100	100	100	100	76	76	69	83	7	
#4 (4.75 mm)	2	3	100	99	100	76	54	54	47	61	7	
#8 (2.36 mm)	1	1	77	63	99	60	42	42	37	47	5	
#16 (1.18 mm)	1	1	49	34	98	46	32	32	28	36	4	
#30 (.600 mm)	1	1	33	18	90	37	24	24	20	28	4	
#50 (.300 mm)	1	1	23	10	53	27	16	16	12	20	4	
#100 (.150 mm)	1	1	16	5	12	16	7	7	4	10	3	
#200 (.075 mm)	1.1	0.9	11.8	2.6	1.3	9.6	4.2	4.2	2.2	6.2	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: 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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Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	8	89.2	85.5 - 89.0
Ndes	80		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	98/95 min. %
Insoluble Residue	8.2	N/A %
LA Abrasion	25.3	40 max. %
Micro-Deval	16.2	25 max. %
Permeability	0.6	12.5 max. 10 <sup>-5</sup> cm/s
Sand Equivalent	74	50 min. %
IOC	0.30	%
Gse	2.697	
Gsb	2.661	
Specimen Weight	4895	g

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.3	2.401	2.516	95.4	Design / Field	13.7	Design / Field	66.4
4.8	2.426	2.497	97.2	96.0 / 94.5 - 97.4	13.2	13.5 / 13.0	78.8
5.3	2.440	2.478	98.5		13.2		88.6

**Dust Prop.**  
 1.1  
 1.0  
 0.9

**Dust Prop. Req.**  
 0.6 - 1.6

**ITS (PSI)** 162.5 75 min.  
**TSR** 0.81 0.80 / 0.75 min. (Design / Field)  
 Compacted Wt. (lbs/sy/1" thick) = 110.4 @ 4.5 % Asphalt Cement  
 3.7 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 3.22 12.50 max. @ 20,000 cycles

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

Comments: Similar to S3pv0261391300 (Plant ID Change)

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

Date: 1/11/2018  
 (mm/dd/yyyy)