



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)

Binder - Recycled ID: B2
(Design Type and Design Type ID)

Koss Construction Co - Asphalt (Topeka, KS) P/S # m00732
(Producer/Supplier Name and Producer/Supplier Code)

S3c00931801500
(Mix ID)

Koss Construction (Westville, OK) PLANT ID # m00732-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Hartshorne, OK) P/S # m002756101	22
3/8" Chips	Dolese Co (Hartshorne, OK) P/S # m002756101	15
Man. Sand	Dolese Co (Coleman, OK) P/S # m002710302	5
Scrns.	Dolese Co (Hartshorne, OK) P/S # m002756101	25
Sand	Muskogee Sand - West Plant (Muskogee, OK) P/S # m007067309	8
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25
Asphalt Additive, Anti-Strip EVOTHERM M1 addi003 Ingevity m00941 (Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		
Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Lion Oil Co. (Muskogee, OK), m00511 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	Producer/Supplier:							Comb. Agg.	Tol. (%)			
	#67 Rock	3/8" Chips	Man. Sand	Scrns.	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)	94	100	100	100	100	100	99	99	92	100	7	
1/2 in (12.5 mm)	52	100	100	100	100	95	88	88	81	95	7	
3/8 in (9.5 mm)	25	94	100	100	100	87	79	79	72	86	7	
#4 (4.75 mm)	4	13	100	87	99	67	54	54	47	61	7	
#8 (2.36 mm)	1	2	93	54	96	51	39	39	34	44	5	
#16 (1.18 mm)	1	2	55	34	89	39	29	29	25	33	4	
#30 (.600 mm)	1	2	27	23	71	30	21	21	17	25	4	
#50 (.300 mm)	1	2	12	17	31	21	13	13	9	17	4	
#100 (.150 mm)	1	1	5	13	4	15	8	8	5	11	3	
#200 (.075 mm)	0.3	0.8	2.6	10.9	0.6	11.0	5.8	5.8	3.8	7.8	2	
AC Content %								4.8	4.8	4.4	5.2	0.4
Asphalt Additive, Anti-Strip %								0.3				

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)
 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	88.8	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Contabro	N/A	%
Durability Index	78	40 min. %
F.A.A. %U	44	N/A %
Flat and Elongated	1	10 max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	5.8	N/A %
LA Abrasion	23	40 max. %
Micro-Deval	13.8	N/A %
Permeability	6.1	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	72	40 min. %
IOC	0.12	%
Gse	2.709	
Gsb	2.653	
Specimen Weight	4750	g

%AC	% Density						
	Gmb	Gmm	of Gmm	% Density Required	% VMA	% VMA Required	% VFA
4.3	2.389	2.526	94.6	Design / Field	13.8	Design / Field	60.9 % VFA Required
4.8	2.407	2.507	96.0	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	70.6 70 - 75
5.3	2.421	2.487	97.3		13.6		80.1

Dust Prop.	Dust Prop. Req.	ITS (PSI)		TSR		Compacted Wt. (lbs/sy/1" thick) = 110.3 @ 4.8 % Asphalt Cement / 3.5 % New Asphalt Cement
		150.8	N/A min.	0.83	0.80 / 0.75 min. (Design / Field)	
1.7						
1.4	0.6 - 1.6					
1.3						

Hamburg Rut Test Depth (mm) 3.33 12.50 max. @ 10,000 cycles

MEETS SPECIFICATION REQUIREMENTS PER SPECIAL PROVISION 708-26(a-f) 09
 Comments: Similar to S3pv0251820000 (Plant ID Change)

Last Modified By: Vivanco, David dvivanco Date: 10/23/2018
 (User Name and User ID) (mm/dd/yyyy)