Version: V03.40

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)

Overland Corp P/S # m00433
(Producer/Supplier Name and Producer/Supplier Code)

S3pv0261700100
(Mix ID)

Overland Corp (Ardmore, OK) - 400TPH PLANT ID # m00433-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Ardmore, OK) P/S # m002701001	20
3/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	15
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	21
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	9
Fine R.A.P.	Contractor / Project Site P/S # Contractor	35

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)

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

Sieve Size	#67 Rock	3/8" Chips	C-33 Scrns.	Sand	Fine R.A.P.				Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
Producer/Supplier:	Dolese Co (Ardmore, OK) P/S # m002701001	Dolese Co (Ardmore, OK) P/S # m002701001	Martin-Marietta (Mill Creek, OK) P/S # m002303502	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	Contractor / Project Site P/S # Contractor								
1 in (25 mm)	100	100	100	100	100				100	100	100	100	0
3/4 in (19 mm)	93	100	100	100	100				99	99	92	100	7
1/2 in (12.5 mm)	50	100	100	100	97				89	89	82	96	7
3/8 in (9.5 mm)	24	96	100	100	88				80	80	73	87	7
#4 (4.75 mm)	3	28	97	100	64				57	57	50	64	7
#8 (2.36 mm)	1	7	81	100	47				44	44	39	49	5
#16 (1.18 mm)	1	4	54	99	36				34	34	30	38	4
#30 (.600 mm)	1	3	31	95	29				26	26	22	30	4
#50 (.300 mm)	1	3	14	69	21				17	17	13	21	4
#100 (.150 mm)	1	3	5	23	12				8	8	5	11	3
#200 (.075 mm)	1.3	2.3	2.3	3.8	7.7				4.1	4.1	2.1	6.1	2
AC Content %					4.3				4.5	4.5	4.1	4.9	0.4

	°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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Tests on Compressed Mixtures (@ Design AC)	# Gyr.	% Density of Gmm	% Density Required
Nini	6	89.6	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	80	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue		N/A		%
LA Abrasion	31	40	max.	%
Micro-Deval	12.6	N/A		%
Permeability	4.5	12.5	max.	10^{-5}cm/s
Sand Equivalent	91	40	min.	%
IOC	0.36			%
Gse	2.673			
Gsb	2.638			
Specimen Weight	4860			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA	% VFA Required
4.3	2.383	2.496	95.5	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	66.9	70 - 75
4.8	2.400	2.477	96.9		13.4		76.9	
5.3	2.418	2.458	98.4		13.2		87.9	

Dust Prop.	Dust Prop. Req.
1.1	0.6 - 1.6
1.0	
0.9	

ITS (PSI) 165.5 N/A min.
TSR 0.82 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.5 @ 4.5 % Asphalt Cement
3.0 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 0.89 12.50 max. @ 10,000 cycles

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

Comments: Restricted to temporary detours only

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

Date: 1/20/2017
(mm/dd/yyyy)