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)

S3pv0261591600
(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	25
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	18
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	12
Fine R.A.P.	Contractor / Project Site P/S # Contractor	25

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Coffeyville Resources Refining (Wynnewood, OK), m00357
(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-

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								
Sieve Size	**#67 Rock**	**3/8" Chips**	**C-33 Scrns.**	**Sand**	**Fine R.A.P.**				**Comb. Agg.**	***JMF***	***Min.***	***Max.***	***% Tol. (±)***
1 in (25 mm)	100	100	100	100	100				100	***100***	*100*	*100*	*0*
3/4 in (19 mm)	95	100	100	100	100				99	***99***	*92*	*100*	*7*
1/2 in (12.5 mm)	50	100	100	100	100				90	***90***	*83*	*97*	*7*
3/8 in (9.5 mm)	26	96	100	100	99				84	***84***	*77*	*91*	*7*
#4 (4.75 mm)	6	28	99	100	80				58	***58***	*51*	*65*	*7*
#8 (2.36 mm)	3	7	78	99	60				43	***43***	*38*	*48*	*5*
#16 (1.18 mm)	3	4	47	99	44				33	***33***	*29*	*37*	*4*
#30 (.600 mm)	3	3	23	96	34				26	***26***	*22*	*30*	*4*
#50 (.300 mm)	3	3	9	86	25				20	***20***	*16*	*24*	*4*
#100 (.150 mm)	2	3	3	36	15				10	***10***	*7*	*13*	*3*
#200 (.075 mm)	2.0	2.3	1.7	6.6	8.6				4.2	***4.2***	*2.2*	*6.2*	*2*
AC Content %					4.7				4.3	***4.3***	*3.9*	*4.7*	*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	88.8	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Durability Index	76	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	12.2	N/A		%
LA Abrasion	32	40	max.	%
Micro-Deval	10.4	N/A		%
Permeability	2.3	12.5	max.	10^{-5}cm/s
Sand Equivalent	75	40	min.	%
IOC	0.18			%
Gse	2.656			
Gsb	2.638			
Specimen Weight	4845			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	2.382	2.482	96.0		13.6		70.6	
4.8	2.394	2.463	97.2	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	79.4	70 - 75
5.3	2.408	2.445	98.5		13.6		89.0	

Dust Prop.	Dust Prop. Req.
1.0	
0.9	0.6 - 1.6
0.8	

ITS (PSI) 159.4 N/A min.
TSR 0.81 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 109.2 @ 4.3 % Asphalt Cement
3.1 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.90 #N/A

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

Comments:

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

Date: 3/5/2018
(mm/dd/yyyy)