Version: V03.50

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)

S3pv0261800900
(Mix ID)

Overland Corp #Astec-4 (Portable) - 400TPH PLANT ID # m00433-05
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Davis, OK) P/S # m002745002	18
5/8" Chips	Dolese Co (Davis, OK) P/S # m002745002	20
3/16" Scrns.	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	10
Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	17
Sand (Unlisted Source)	Ingram Sand Pit	10
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)

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

Producer/Supplier:	Dolese Co (Davis, OK) P/S # m002745002	Dolese Co (Davis, OK) P/S # m002745002	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Ingram Sand Pit	Contractor / Project Site P/S # Contractor							
Sieve Size	**#67 Rock**	**5/8" Chips**	**3/16" Scrns.**	**Man. Sand**	**Sand (Unlisted Source)**	**Fine R.A.P.**			**Comb. Agg.**	***JMF***	***Min.***	***Max.***	***% Tol. (±)***
1 in (25 mm)	100	100	100	100	100	100			100	***100***	*100*	*100*	*0*
3/4 in (19 mm)	93	100	100	100	100	100			99	***99***	*92*	*100*	*7*
1/2 in (12.5 mm)	51	90	100	100	100	100			89	***89***	*82*	*96*	*7*
3/8 in (9.5 mm)	26	55	100	100	100	98			77	***77***	*70*	*84*	*7*
#4 (4.75 mm)	6	5	99	98	100	86			60	***60***	*53*	*67*	*7*
#8 (2.36 mm)	2	2	81	70	100	69			48	***48***	*43*	*53*	*5*
#16 (1.18 mm)	2	1	58	40	99	54			37	***37***	*33*	*41*	*4*
#30 (.600 mm)	2	1	41	23	92	44			29	***29***	*25*	*33*	*4*
#50 (.300 mm)	2	1	32	17	61	34			21	***21***	*17*	*25*	*4*
#100 (.150 mm)	1	1	19	4	7	21			9	***9***	*6*	*12*	*3*
#200 (.075 mm)	1.2	1.0	12.5	1.0	1.0	12.4			5.0	***5.0***	*3.0*	*7.0*	*2*
AC Content %						5.1			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

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

Tests on Compressed Mixtures (@ Design AC)

	# Gyr.	% Density of Gmm	% Density Required
Nini	6	89.5	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates		Required		Units
Contabro		N/A		%
Durability Index	71	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	28	40	max.	%
Micro-Deval	13.9	N/A		%
Permeability	4.7	12.5	max.	10^{-5}cm/s
Sand Equivalent	77	40	min.	%
IOC	0.39			%
Gse	2.687			
Gsb	2.653			
Specimen Weight	4880			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	2.388	2.508	95.2		13.9		65.5	
4.8	2.410	2.489	96.8	96.0 / 94.5 - 97.4	13.5	13.5 / 13.0	76.3	70 - 75
5.3	2.432	2.470	98.5		13.2		88.6	

Dust Prop.	Dust Prop. Req.
1.3	0.6 - 1.6
1.2	
1.0	

ITS (PSI) 109 N/A min.

TSR 0.81 0.80 / 0.75 min. (Design / Field)

Compacted Wt. (lbs/sy/1" thick) = 110.0 @ 4.5 % Asphalt Cement

3.2 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 7.16 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Smith, Jerry D. jsmith
(User Name and User ID)

Date: 9/20/2018
(mm/dd/yyyy)