Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S4 (PG 64-22 OK) Mat'l. Code: asco012
(Material Full Name and Material Code)

Insoluble ID: I1
(Design Type and Design Type ID)

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

S4c00931401600
(Mix ID)

Overland Corp (Portable) - 400TPH PLANT ID # m00433-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
5/8" Chips	Dolese Co (Coleman, OK) P/S # m002710302	25
'D' Rock	Martin-Marietta (Mill Creek, OK) P/S # m002303502	20
Scrns.	Dolese Co (Coleman, OK) P/S # m002710302	20
Man. Sand	TXI Mill Creek Stone Plant P/S # m005253504	20
Sand	Alan Ritchey Materials Co (ARMCO) (Yuba, OK) P/S # m006120707	15

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 (Coleman, OK) P/S # m002710302	Martin-Marietta (Mill Creek, OK) P/S # m002303502	Dolese Co (Coleman, OK) P/S # m002710302	TXI Mill Creek Stone Plant P/S # m005253504	Alan Ritchey Materials Co (ARMCO) (Yuba, OK) P/S # m006120707								
Sieve Size	**5/8" Chips**	**'D' Rock**	**Scrns.**	**Man. Sand**	**Sand**				**Comb. Agg.**	***JMF***	***Min.***	***Max.***	***% Tol. (±)***
3/4 in (19 mm)	100	100	100	100	100				100	***100***	*100*	*100*	*0*
1/2 in (12.5 mm)	94	100	100	100	100				99	***99***	*92*	*100*	*7*
3/8 in (9.5 mm)	67	92	100	100	100				90	***90***	*83*	*97*	*7*
#4 (4.75 mm)	7	29	89	99	100				60	***60***	*53*	*67*	*7*
#8 (2.36 mm)	4	6	55	82	100				45	***45***	*40*	*50*	*5*
#16 (1.18 mm)	1	3	36	54	99				34	***34***	*30*	*38*	*4*
#30 (.600 mm)	1	2	27	30	99				27	***27***	*23*	*31*	*4*
#50 (.300 mm)	1	1	20	12	85				20	***20***	*16*	*24*	*4*
#100 (.150 mm)	1	1	15	4	33				9	***9***	*6*	*12*	*3*
#200 (.075 mm)	1.2	0.4	12.5	1.8	9.2				4.6	***4.6***	*2.6*	*6.6*	*2*
AC Content %									4.8	***4.8***	*4.4*	*5.2*	*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	67	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated		10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	43	30	min.	%
LA Abrasion	23	40	max.	%
Micro-Deval	12.4	N/A		%
Permeability	3.9	12.5	max.	10^{-5}cm/s
Sand Equivalent	76	40	min.	%
IOC	0.62			%
Gse	2.756			
Gsb	2.724			
Specimen Weight	4900			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	2.394	2.565	93.3	96.0 / 94.5 - 97.4	15.9	14.5 / 14.0	57.9	72 - 77
4.8	2.442	2.545	96.0		14.7		72.8	
5.3	2.462	2.525	97.5		14.4		82.6	

Dust Prop.	Dust Prop. Req.
1.2	0.6 - 1.6
1.0	
0.9	

ITS (PSI) 164.3 N/A min.
TSR 0.92 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 112.0 @ 4.8 % Asphalt Cement

Hamburg Rut Test Depth (mm) 4.20 12.50 max. @ 10,000 cycles

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

Comments:

Last Modified By: Schratwieser, Edward P. eschratw
(User Name and User ID)

Date: 9/15/2014
(mm/dd/yyyy)