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)

MPC Materials P/S # m00906
(Producer/Supplier Name and Producer/Supplier Code)

S3c00931701300
(Mix ID)

MPC Materials - Markwell (Porter Hill) PLANT ID # m00906-02
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co. (Richards Spur, OK) P/S # m002761601	35
3/8" Chips	Dolese Co. (Richards Spur, OK) P/S # m002761601	10
Man. Sand	Dolese Co. (Roosevelt, OK) P/S # m010483804	15
Scrns.	Dolese Co. (Richards Spur, OK) P/S # m002761601	15
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. (Richards Spur, OK) P/S # m002761601	Dolese Co. (Richards Spur, OK) P/S # m002761601	Dolese Co. (Roosevelt, OK) P/S # m010483804	Dolese Co. (Richards Spur, OK) P/S # m002761601	Contractor / Project Site P/S # Contractor								
Sieve Size	**#67 Rock**	**3/8" Chips**	**Man. Sand**	**Scrns.**	**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				98	***98***	*91*	*100*	*7*
1/2 in (12.5 mm)	54	100	100	100	100				84	***84***	*77*	*91*	*7*
3/8 in (9.5 mm)	29	92	100	100	95				73	***73***	*66*	*80*	*7*
#4 (4.75 mm)	4	13	96	87	81				50	***50***	*43*	*57*	*7*
#8 (2.36 mm)	2	3	65	54	64				35	***35***	*30*	*40*	*5*
#16 (1.18 mm)	1	2	43	35	51				25	***25***	*21*	*29*	*4*
#30 (.600 mm)	1	1	27	24	41				18	***18***	*14*	*22*	*4*
#50 (.300 mm)	1	1	13	17	30				12	***12***	*8*	*16*	*4*
#100 (.150 mm)	1	1	6	13	16				7	***7***	*4*	*10*	*3*
#200 (.075 mm)	0.9	1.2	2.4	10.3	9.3				4.7	***4.7***	*2.7*	*6.7*	*2*
AC Content %					5.0				5.2	***5.2***	*4.8*	*5.6*	*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	86.9	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	2	10	max.	%
Fractured Faces	100/100	85/80	min.	%
Insoluble Residue	2.4	N/A		%
LA Abrasion	23.6	40	max.	%
Micro-Deval	13.9	N/A		%
Permeability	1.8	12.5	max.	10^{-5}cm/s
Sand Equivalent	98	40	min.	%
IOC	0.11			%
Gse	2.739			
Gsb	2.691			
Specimen Weight	4675			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA	
5.0	2.407	2.523	95.4	Design / Field	15.0	Design / Field	69.3	% VFA Required
5.5	2.421	2.503	96.7	96.0 / 94.5 - 97.4	15.0	13.5 / 13.0	78.0	70 - 75
6.0	2.427	2.484	97.7		15.2		84.9	

Dust Prop.
1.1
1.0
0.9

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 80.7 N/A min.
TSR 0.92 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 110.6 @ 5.2 % Asphalt Cement
3.9 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 6.45 12.50 max. @ 10,000 cycles

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

Comments: Similar to S3pv0441701400 (Plant ID Change)

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

Date: 6/13/2017
(mm/dd/yyyy)