Version: V03.40

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 76-28 OK) Mat'l. Code: asco007
(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)

S3c00931800400
(Mix ID)

MPC Materials Markwell #30-35 (Portable) PLANT ID # m00906-03
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
1" Rock	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	21
5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	15
Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	17
Scrns.	Dolese Co (Davis, OK) P/S # m002745002	20
Sand (Unlisted Source)	General Materials, Inc(okc,Ok)m001911402	12
Coarse R.A.P.	Contractor / Project Site P/S # Contractor	8
Fine R.A.P.	Contractor / Project Site P/S # Contractor	7

Asphalt Cement: Asphaltic Cement Type PG 76-28 OK, acem001, 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:	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Dolese Co (Davis, OK) P/S # m002745002	General Materials, Inc(okc,Ok)m001911402	Contractor / Project Site P/S # Contractor	Contractor / Project Site P/S # Contractor						
Sieve Size	**1" Rock**	**5/8" Chips**	**Man. Sand**	**Scrns.**	**Sand (Unlisted Source)**	**Coarse R.A.P.**	**Fine R.A.P.**		**Comb. Agg.**	***JMF***	***Min.***	***Max.***	***% Tol. (±)***
1 in (25 mm)	100	100	100	100	100	100	100		100	***100***	*100*	*100*	*0*
3/4 in (19 mm)	69	100	100	100	100	93	100		93	***93***	*86*	*100*	*7*
1/2 in (12.5 mm)	24	89	100	100	100	83	100		81	***81***	*74*	*88*	*7*
3/8 in (9.5 mm)	7	62	100	100	100	70	99		72	***72***	*65*	*79*	*7*
#4 (4.75 mm)	2	13	100	87	100	46	89		59	***59***	*52*	*66*	*7*
#8 (2.36 mm)	2	3	71	54	100	33	73		43	***43***	*38*	*48*	*5*
#16 (1.18 mm)	2	2	45	34	98	27	59		33	***33***	*29*	*37*	*4*
#30 (.600 mm)	2	2	24	23	90	22	48		25	***25***	*21*	*29*	*4*
#50 (.300 mm)	1	2	14	17	50	17	36		16	***16***	*12*	*20*	*4*
#100 (.150 mm)	1	2	7	13	9	10	20		8	***8***	*5*	*11*	*3*
#200 (.075 mm)	1.1	1.4	3.9	10.9	1.3	5.7	10.8		4.7	***4.7***	*2.7*	*6.7*	*2*
AC Content %						3.9	5.4		4.4	***4.4***	*4.0*	*4.8*	*0.4*

	°F (°C)	Required
Mix temperature @ discharge from mixer:	325 (163)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	305 (152)	
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	8	88.3	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates		Required		Units
Durability Index	75	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	62.6	N/A		%
LA Abrasion	25.3	40	max.	%
Micro-Deval	16.2	25	max.	%
Permeability	0.3	12.5	max.	10^{-5}cm/s
Sand Equivalent	73	50	min.	%
IOC	0.22			%
Gse	2.728			
Gsb	2.689			
Specimen Weight	4955			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	2.429	2.542	95.6	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	67.6	70 - 75
4.8	2.440	2.522	96.7		13.6		75.7	
5.3	2.455	2.502	98.1		13.5		85.9	

Dust Prop.
1.2
1.1
1.0

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 147.6 75 min.
TSR 0.92 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 111.7 @ 4.4 % Asphalt Cement
3.7 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 2.26 12.50 max. @ 20,000 cycles

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

Comments: Similar to S3pv0261200700 (Plant ID Change)

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

Date: 1/31/2018
(mm/dd/yyyy)