Version: V03.50

Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, RIL (PG 76-28 E) Mat'l. Code: asco043
(Material Full Name and Material Code)

Binder ID: B1
(Design Type and Design Type ID)

APAC Central - (Arkhola S & G Asphalt) P/S # m00553
(Producer/Supplier Name and Producer/Supplier Code)

RIpv0261800500
(Mix ID)

APAC - Central (Muskogee, OK) Formerly Glover PLANT ID # m00553-09
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
Mine Chat	Mine Chat @ Tri City Area P/S # MineChat	40
Man. Sand	Anchor Stone (Owasso, OK) P/S # m001156603	30
Scrns.	Anchor Stone (Owasso, OK) P/S # m001156603	15
Sand	APAC - Arkhola Muskogee Sand Plant P/S # m001315103	15

Asphalt Cement: Asphaltic Cement Type PG 76-28 E, acem008, Lion Oil Co. (Muskogee, OK), m00511
(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:	Mine Chat @ Tri City Area P/S # MineChat	Anchor Stone (Owasso, OK) P/S # m001156603	Anchor Stone (Owasso, OK) P/S # m001156603	APAC - Arkhola Muskogee Sand Plant P/S # m001315103									
Sieve Size	Mine Chat	Man. Sand	Scrns.	Sand					Comb. Agg.	JMF	Min.	Max.	% Tol. (±)
1/2 in (12.5 mm)	100	100	100	100					100	100	100	100	0
3/8 in (9.5 mm)	100	100	100	100					100	100	93	100	7
#4 (4.75 mm)	49	99	96	99					79	79	72	86	7
#8 (2.36 mm)	11	81	78	93					54	54	49	59	5
#16 (1.18 mm)	4	50	59	78					37	37	33	41	4
#30 (.600 mm)	3	29	45	49					24	24	20	28	4
#50 (.300 mm)	2	16	36	9					12	12	8	16	4
#100 (.150 mm)	2	8	31	1					8	8	5	11	3
#200 (.075 mm)	1.4	6.0	26.4	1.0					6.5	6.5	4.5	8.5	2
AC Content %									7.0	7.0	6.6	7.4	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
Ndes	50		97.0

Tests on Aggregates		Required		Units
Contabro		N/A		%
Durability Index	67	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	70.3	N/A		%
LA Abrasion	25	40	max.	%
Micro-Deval	19.1	25	max.	%
Permeability	5.8	12.5	max.	10^{-5}cm/s
Sand Equivalent	79	50	min.	%
IOC	0.47			%
Gse	2.619			
Gsb	2.529			
Specimen Weight	4645			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required Design / Field	% VMA	% VMA Required Design / Field	% VFA
6.0	2.235	2.391	93.5		16.9		61.5
6.5	2.261	2.373	95.3	97.0 / 95.5 - 98.4	16.4	15.0 / 14.5	71.3
7.0	2.285	2.356	97.0		16.0		81.3

Dust Prop.
1.4
1.3
1.1

Dust Prop. Req. 0.4 - 1.9

ITS (PSI) 87.4 N/A min.
TSR 0.81 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 104.8 @ 7.0 % Asphalt Cement

Hamburg Rut Test Depth (mm) 3.81 12.50 max. @ 20,000 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: 8/20/2018
(mm/dd/yyyy)