Version: V03.40

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)

RIc00931800200
(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	35
Man. Sand	Anchor Stone (Owasso, OK) P/S # m001156603	30
Scrns.	Anchor Stone (Owasso, OK) P/S # m001156603	20
Sand	Anchor Sand, Delaware Ave. (Jenks, OK) P/S # m001137217	15

Asphalt Cement: Asphaltic Cement Type PG 76-28 E, acem008, Lion Oil (Muskogee, OK), m00332
(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-

Sieve Size	Mine Chat	Man. Sand	Scrns.	Sand					Comb. Agg.	JMF	Min.	Max.	% Tol. (±)	
Producer/Supplier:	*Mine Chat @ Tri City Area P/S # MineChat*	*Anchor Stone (Owasso, OK) P/S # m001156603*	*Anchor Stone (Owasso, OK) P/S # m001156603*	*Anchor Sand, Delaware Ave. (Jenks, OK) P/S # m001137217*										
1/2 in (12.5 mm)	100	100	100	100					100	**100**	100	100	0	
3/8 in (9.5 mm)	97	100	100	100					99	**99**	92	100	7	
#4 (4.75 mm)	37	87	97	99					73	**78**	71	85	7	x
#8 (2.36 mm)	8	56	75	92					48	**53**	48	58	5	x
#16 (1.18 mm)	3	30	54	74					32	**35**	31	39	4	x
#30 (.600 mm)	2	14	39	46					20	**20**	16	24	4	
#50 (.300 mm)	1	6	30	17					11	**11**	7	15	4	
#100 (.150 mm)	1	3	25	3					7	**7**	4	10	3	
#200 (.075 mm)	0.8	1.9	20.8	0.7					5.1	**5.1**	3.1	7.1	2	
AC Content %									6.9	**6.9**	6.5	7.3	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
Durability Index	67	40	min.	%
F.A.A. %U	45	N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	56.2	N/A		%
LA Abrasion	25	40	max.	%
Micro-Deval	19.1	25	max.	%
Permeability	3	12.5	max.	10^{-5}cm/s
Sand Equivalent	78	50	min.	%
IOC	0.35			%
Gse	2.620			
Gsb	2.535			
Specimen Weight	4655			g

Tests on Compressed Mixtures

%AC	Gmb	Gmm	% Density of Gmm	% Density Required	% VMA	% VMA Required	% VFA
5.9	2.258	2.395	94.3	Design / Field	16.2	Design / Field	64.8
6.4	2.269	2.377	95.5	97.0 / 95.5 - 98.4	16.2	15.0 / 14.5	72.2
6.9	2.290	2.360	97.0		15.9		81.1

Dust Prop.
1.1
1.0
0.9

Dust Prop. Req. 0.4 - 1.9

ITS (PSI) 100.4 N/A min.
TSR 0.87 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 104.9 @ 6.9 % Asphalt Cement

x 1st JMF Revision

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

Comments:

Last Modified By: McComack, Hunter J. hmccomac
(User Name and User ID)

Date: 7/12/2018
(mm/dd/yyyy)