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 ID: B1
(Design Type and Design Type ID)

T & G Const Co P/S # m00566
(Producer/Supplier Name and Producer/Supplier Code)

S3pv0261300400
(Mix ID)

T & G Const Co #1 (Lawton, OK) - 400TPH PLANT ID # m00566-01
(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co. (Richards Spur, OK) P/S # m002761601	30
3/8" Chips	Dolese Co. (Richards Spur, OK) P/S # m002761601	15
Scrns.	Dolese Co. (Richards Spur, OK) P/S # m002761601	30
Stone Sand	Dolese Co. (Richards Spur, OK) P/S # m002761601	10
Sand	T. & G. Const., Inc. (Lawton, OK) P/S # m008713305	15

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-

Sieve Size	Producer/Supplier: Dolese Co. (Richards Spur, OK) P/S # m002761601 — #67 Rock	Dolese Co. (Richards Spur, OK) P/S # m002761601 — 3/8" Chips	Dolese Co. (Richards Spur, OK) P/S # m002761601 — Scrns.	Dolese Co. (Richards Spur, OK) P/S # m002761601 — Stone Sand	T. & G. Const., Inc. (Lawton, OK) P/S # m008713305 — Sand				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)	94	100	100	100	100				98	**98**	91	100	7
1/2 in (12.5 mm)	57	100	100	100	100				87	**87**	80	94	7
3/8 in (9.5 mm)	31	94	100	100	100				78	**78**	71	85	7
#4 (4.75 mm)	5	17	91	94	100				56	**56**	49	63	7
#8 (2.36 mm)	2	4	55	60	99				39	**39**	34	44	5
#16 (1.18 mm)	2	2	36	32	98				30	**30**	26	34	4
#30 (.600 mm)	2	2	25	18	90				24	**24**	20	28	4
#50 (.300 mm)	2	2	18	9	48				14	**14**	10	18	4
#100 (.150 mm)	1	1	14	5	8				6	**6**	3	9	3
#200 (.075 mm)	1.3	1.3	11.0	3.4	0.8				4.3	**4.3**	2.3	6.3	2
AC Content %									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	89.0	85.5 - 89.0
Ndes	80		96.0

Tests on Aggregates		Required		Units
Durability Index	79	40	min.	%
F.A.A. %U		N/A		%
Flat and Elongated	0	10	max.	%
Fractured Faces	100/100	98/95	min.	%
Insoluble Residue	4	N/A		%
LA Abrasion	24.3	40	max.	%
Micro-Deval	12.2	25	max.	%
Permeability	0.2	12.5	max.	10^{-5}cm/s
Sand Equivalent	69	50	min.	%
IOC	0.35			%
Gse	2.685			
Gsb	2.659			
Specimen Weight	4865			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	2.400	2.506	95.8	96.0 / 94.5 - 97.4	13.6	13.5 / 13.0	69.1	70 - 75
4.8	2.412	2.487	97.0		13.6		77.9	
5.3	2.424	2.468	98.2		13.7		86.9	

Dust Prop.
1.1
1.0
0.9

Dust Prop. Req. 0.6 - 1.6

ITS (PSI) 154.3 75 min.

TSR 0.84 0.80 / 0.75 min. (Design / Field)

Compacted Wt. (lbs/sy/1" thick) = 110.1 @ 4.4 % Asphalt Cement

Hamburg Rut Test Depth (mm) 6.98 12.50 max. @ 20,000 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: 3/18/2013
(mm/dd/yyyy)