



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 70-28 OK) Mat'l. Code: asco008
 (Material Full Name and Material Code)
 Overland Corp P/S # m00433
 (Producer/Supplier Name and Producer/Supplier Code)
 Overland Corp # ASTEC-1 (Ardmore, OK) - 250TPH PLANT ID # m00433-01
 (Plant Name and Plant ID)

Binder - Recycled ID: B2
 (Design Type and Design Type ID)
 S3pv0261800100
 (Mix ID)

Aggregate	Producer/Supplier	% USED
#67 Rock	Dolese Co (Ardmore, OK) P/S # m002701001	32
3/8" Chips	Dolese Co (Ardmore, OK) P/S # m002701001	15
C-33 Scrns.	Martin-Marietta (Mill Creek, OK) P/S # m002303502	26
Sand	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	12
Fine R.A.P.	Contractor / Project Site P/S # Contractor	15
Asphalt Cement: Asphaltic Cement Type PG 70-28 OK, acem002, Valero (Ardmore, OK), m00352 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		

Sieve Size	Dolese Co (Ardmore, OK) P/S # m002701001	Dolese Co (Ardmore, OK) P/S # m002701001	Martin-Marietta (Mill Creek, OK) P/S # m002303502	Thackerville Sand & Gravel (Thackerville, OK) P/S # m001974301	Contractor / Project Site P/S # Contractor	Comb. Agg.	Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-			
							JMF	Min.	Max.	% Tol. (±)
1 in (25 mm)	100	100	100	100	100	100	100	100	100	0
3/4 in (19 mm)	96	100	100	100	100	99	99	92	100	7
1/2 in (12.5 mm)	69	100	100	100	99	90	90	83	97	7
3/8 in (9.5 mm)	39	86	100	100	92	77	77	70	84	7
#4 (4.75 mm)	5	13	98	100	66	51	51	44	58	7
#8 (2.36 mm)	2	2	80	99	47	41	41	36	46	5
#16 (1.18 mm)	2	2	53	98	35	32	32	28	36	4
#30 (.600 mm)	2	1	30	94	27	24	24	20	28	4
#50 (.300 mm)	2	1	13	66	20	15	15	11	19	4
#100 (.150 mm)	1	1	5	21	11	6	6	3	9	3
#200 (.075 mm)	1.0	1.0	2.8	3.7	7.0	2.7	2.7	0.7	4.7	2
AC Content %					3.6	4.5	4.5	4.1	4.9	0.4

Mix temperature @ discharge from mixer: 325 (163) °F (°C) Required ± 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 Aggregates	Required	Units
Durability Index	80	40 min. %
F.A.A. %U		N/A %
Flat and Elongated	0	10 max. %
Fractured Faces	100/100	95/90 min. %
Insoluble Residue	10.4	N/A %
LA Abrasion	31	40 max. %
Micro-Deval	12.6	N/A %
Permeability	2.5	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	87	45 min. %
IOC	0.25	%
Gse	2.663	
Gsb	2.649	
Specimen Weight	4840	g

Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	7	90.2	85.5 - 90.5
Ndes	65		96.0

Tests on Compressed Mixtures							
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required	% VFA
			of Gmm	% Density Required			
4.3	2.376	2.488	95.5	Design / Field	14.2	Design / Field	68.3
4.8	2.393	2.469	96.9	96.0 / 94.5 - 97.4	14.0	13.5 / 13.0	77.9
5.3	2.408	2.450	98.3		13.9		87.8

Dust Prop.
 0.7 **Dust Prop. Req.**
 0.6 0.6 - 1.6
 0.5

ITS (PSI) 119.8 N/A min.
TSR 0.92 0.80 / 0.75 min. (Design / Field)
 Compacted Wt. (lbs/sy/1" thick) = 109.1 @ 4.5 % Asphalt Cement
 4.0 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.94 12.50 max. @ 15,000 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: 3/12/2018
 (mm/dd/yyyy)