



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type 1/2" PFC Mat'l. Code: asco029

Insoluble ID: I1

(Material Full Name and Material Code)

(Design Type and Design Type ID)

Cornell Const Co P/S # m00309

WP1qc0361600100

(Producer/Supplier Name and Producer/Supplier Code)

(Mix ID)

Cornell Const Co (Portable) - 400TPH PLANT ID # m00309-01

(Plant Name and Plant ID)

Aggregate	Producer/Supplier	% USED
3/4" Chips	Dolese Co (Cooperton, OK) P/S # m002723801	27
5/8" Chips	Dolese Co. (Roosevelt, OK) P/S # m010483804	40
3/8" Chips	Dolese Co (Cooperton, OK) P/S # m002723801	33
Warm Mix Asphalt (WMA) Technology		
EVOTHERM (Chem. Add.) qual028 Ingevity m00941		
(Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		
(Product Name, Manufacturer Name)		
Asphalt Additive, Anti-Strip		
EVOTHERM J1 addi003 Ingevity m00941		
(Product Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)		
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)		

Producer/Supplier:	Dolese Co (Cooperton, OK) P/S # m002723801	Dolese Co. (Roosevelt, OK) P/S # m010483804	Dolese Co (Cooperton, OK) P/S # m002723801						Comb. Agg.	Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-				
	3/4" Chips	5/8" Chips	3/8" Chips							JMF	Min.	Max.	% Tol. (±)	
Sieve Size														
3/4 in (19 mm)	100	100	100					100	100	100	100	0		
1/2 in (12.5 mm)	45	87	100					80	80	73	87	7		
3/8 in (9.5 mm)	13	54	95					56	56	49	63	7		
#4 (4.75 mm)	5	3	13					7	7	0	14	7		
#8 (2.36 mm)	3	2	3					3	3	0	8	5		
#200 (.075 mm)	1.0	0.9	1.7					1.2	1.2	0.0	3.2	2		
AC Content %								6.0	6.0	5.6	6.4	0.4		
Asphalt Additive, Anti-Strip %														
Cellulose Fiber %														
Warm Mix Asphalt (WMA) Additive %														0.5

	°F (°C)	Required
Mix temperature @ discharge from mixer:	270 (132)	± 20 °F (± 10 °C)
Optimum roadway compaction temperature:	250 (121)	
Laboratory mixing temperature:	325 (163)	
Laboratory compaction temperature:	300 (149)	

Tests on Asphalt Cement	Found
Specific Gravity @ 77 ° F	1.0100

Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-

Tests on Compressed Mixtures (@ Design AC)		
# Gyr.	% Density of Gmm	% Density Required
Ndes	50	82.0 max.

Tests on Aggregates	Required	Units
Durability Index	40 min.	%
F.A.A. %U	N/A	%
Flat and Elongated	0 10 max.	%
Fractured Faces	100/100 98/95 min.	%
Insoluble Residue	41.2 40 min.	%
LA Abrasion	29 30 max.	%
Micro-Deval	9.8 25 max.	%
Permeability	N/A	10 ⁻⁵ cm/s
Sand Equivalent	N/A	%
IOC	0.34	%
Gse	2.755	
Specimen Weight	3995	g

Tests on Compressed Mixtures

% Density Required Design / Field

Compacted Wt. (lbs/sy/1" thick) = 93.5 @ 6.0 % Asphalt Cement

Drain-down(%) = 0.11 0.20 max.

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

Comments:

Last Modified By: Williams, Bobby Ray bwilli01
(User Name and User ID)

Date: 1/10/2017
(mm/dd/yyyy)