ARPA / AGC
MAG / ADOT Asphalt Rubber - Asphalt Concrete Review - April 2008

Gradation Specifications

Sieve % Passing	MCDOT 1" -1.5"	MCDOT 2"	COP Major Streets	COP Residential	Mesa Wet	Mesa T Blend	Glendale	ADOT	
1"	100	100	100	100	100	100	100	100	
3/4"	100	97-100	100	100	100	100	100	100	
1/2"	100	78-92	100	100	100	100	100	80-100	
3/8"	78-92	61-75	82-88	82-88	78-92	82-88	78-92	65-80	
#4	28-42	30-40	32-38	32-38	28-42	32-38	28-42	29-43	
#8	15-25	15-25	13-19	13-19	15-25	13-19	15-25	15-23	
#30	5-15	5-15	6-10	6-10	5-15	6-10	5-15	--	
#40	--	--	--	--	--	--	--	--	
#200	3-7	2-6	2-6	2-6	3-7	2-6	3-7	0-3.5	

ARAC Mix Specifications

	MCDOT 1" -1.5"	MCDOT 2"	COP Major Streets	COP Residential	Mesa Wet	Mesa T Blend	Glendale	ADOT	
ARB %	8.0-8.4*	7.1-7.4	7.6-8.2	8.1-8.7	7.5+	6.5-7.0	7.0-9.0 ***	****	
Mix Air Voids %	4.0-6.0	4.0-6.0	4.0-6.0	2.5-4.5	3.0-5.0	3.5-4.5	4.0-6.0	5.0-6.0	
VMA %	--	--	Min 19	Min 19	15.5 - 24	15.5 - 24	15.5 - 24	Min 19	
Stab, (lbs)	--	--	Min 800	Min 800	Min 600	Min 800	Min 600	--	
SE %	Min 65	Min 65	Min 65	Min 65	Min 50	Min 65	Min 65	Min 55	
Cr. Faces %	Min 85	Min 85	Min 85	Min 85	Min 85	Min 85	Min 95	Min 92	
ARB Method	MAG 717	MAG 717	COP & 717	COP & 717	Mesa/ADOT	Mesa/ADOT	MAG 717	ADOT 1009	
Design Method	Chehovits	Chehovits	T-245	T-245	Mesa/MAG	Mesa/MAG	MAG	ARIZ 832	
Mineral Admix	1.0/1.5**	1.0/1.5**	Min 1.5%	Min 1.5%	MAG	MAG	MAG	1.0%	

* 8.0-8.4 is for High Traffic, 8.4-8.8% is specified for Low Traffic

** 1.0% = Lime, 1.5% = Cement

*** 7.0-8.0% is High traffic, 8.0-9.0 is for Low Traffic

**** ARB % determine by Mix Air Void content

Notes

A. Each agency is using the same or very similar gradation specification, except MCDOT 2" Lift

B. Asphalt Binder % and Air Void ranges vary within a narrow range

C. In general, expect for ADOT, Mix design methods refer to Marshall 75 blow test methods, and MAG specifications

D. In general, expect for ADOT and COP, ARB design methods refer to MAG 717 and are outdated when compared to ADOT methods

E. Only MCDOT uses a gradation with 1/2" & 3/4" coarse aggregates

F. Only Mesa includes a "Terminal Blend Rubber" vs. "Wet Process Rubber" specification

G. Only ADOT and COP use VMA specifications that match the Gap-Graded gradation and high film thickness of ARAC

H. Mix compaction temps are 290-295 F for each agency, except ADOT which is 325 F