

WAPA Porous Asphalt Mix Design

Mix Properties	12.5 mm Mix	9.5 mm Mix	Test Standard	Footnote
Binder Content	5.5% min	5.5% min		1
Binder Grade	PG 64-22	PG 64-22		2
% Air Voids (V_a @ 50 gyrations)	18 - 20	18 - 20		
Tensile Strength Ratio (TSR @ 5 cycles freeze/thaw)	80% min	80% min	ASTM D4867	3
Draindown at Production Temperature	0.3% max	0.3% max		4

Aggregate Properties				
LA Abrasion (% Loss)			AASHTO T 96	
	100 Revolutions	13 max	13 max	
	500 Revolutions	45 max	45 max	
Soundness (% Loss) using sodium sulfate		12 max	12 max	AASHTO T 104
Freeze/Thaw (% Loss)		18 max	18 max	AASHTO T 103
Fractured Faces				ASTM D5821
	2 Faces	90% min	90% min	
	1 Face	100% min	100% min	
Thin or Elongated		5% max 5:1 ratio	5% max 5:1 ratio	ASTM D4791

Mixture Gradation

Sieve	12.5 mm Mix	9.5 mm Mix
3/4"	100	-
1/2"	85 - 100	100
3/8"	55 - 75	90 - 100
#4	10 - 25	30 - 40
#8	5 - 12	10 - 20
#16	-	5 - 15
#30	-	3 - 10
#200	1 - 4	1 - 4
VMA (%)	25 min	25 min

Footnotes

- 1 5.75 - 6.0% Recommended
- 2 min. high temperature of 64 C Recommended
- 3 following National guidance, we are not including the Cantabro Abrasion test in the mix design guidelines
- 4 effective measures to reduce draindown include the use of washed manufactured sand in lieu of crusher screenings and fibers. Also a slight reduction in production temperature may also be considered