

Evaluation of Warm-Mix Asphalt Incorporating Recycled Asphalt Pavement for Volumetric and Mechanical Properties, TRB 11-2569 Andrew M. Kasozi, Elie Y. Hajj, Peter E. Sebaaly and John Elkins



Department of Civil & Environmental Engineering, University of Nevada Reno (UNR)

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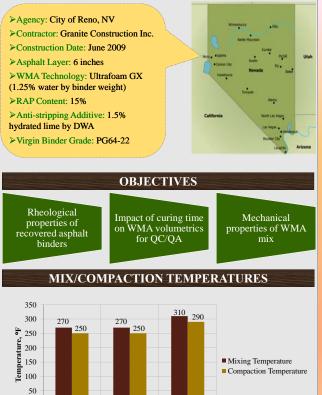
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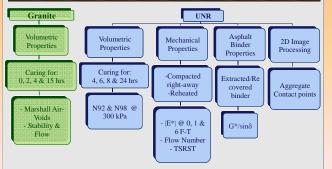
Curing Period, hrs

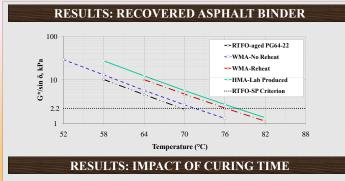
CHISM ST., RENO, NV- WMA/RAP TEST SECTION

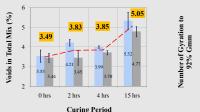


WMA-No Reheat WMA Reheat HMA-Lab

EXPERIMENTAL PROGRAM

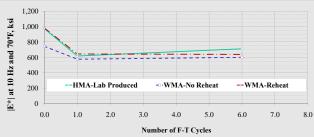




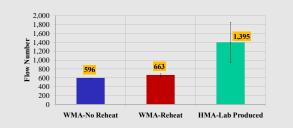


Sample 1 Sample 2 - Average

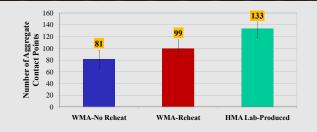
RESULTS: MOISTURE DAMAGE RESISTANCE



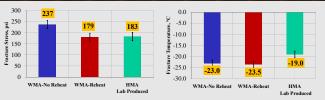
RESULTS: PERMANENT DEFORMATION RESISTANCE



RESULTS: AGGREGATE CONTACT POINTS



RESULTS: THERMAL CRACKING RESISTANCE



INITIAL FIELD PERFORMANCE



RECOMMENDATIONS AND CONCLUSIONS

> Recommended QA/QC Curing Period

Production testing for volumetric properties should be conducted within 4 hours of manufacturing the foamed WMA at the plant.

> Laboratory Performance

	HMA Lab Produced		
	Moisture Damage	Permanent Deformation	Thermal Cracking
	Resistance	Resistance	Resistance
WMA-No Reheat	Similar	Lower	Higher
WMA- Reheat	Similar	Lower	Higher

> Field Performance

No Distresses observed in the WMA pavement after 13 months of service \rightarrow The relatively low FN obtained in laboratory was sufficient on this project

ACKNOWLEDGMENT

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