

# **Forecasting the Long Term Skid Resistance Performance of Road Surfaces in New Zealand**

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# Road Safety



## Polished Stone Value (PSV) Test

Limitations:

- It mainly measures the effect of the microtexture of aggregates
- It was designed for old traffic volumes
- It uses a set polishing time

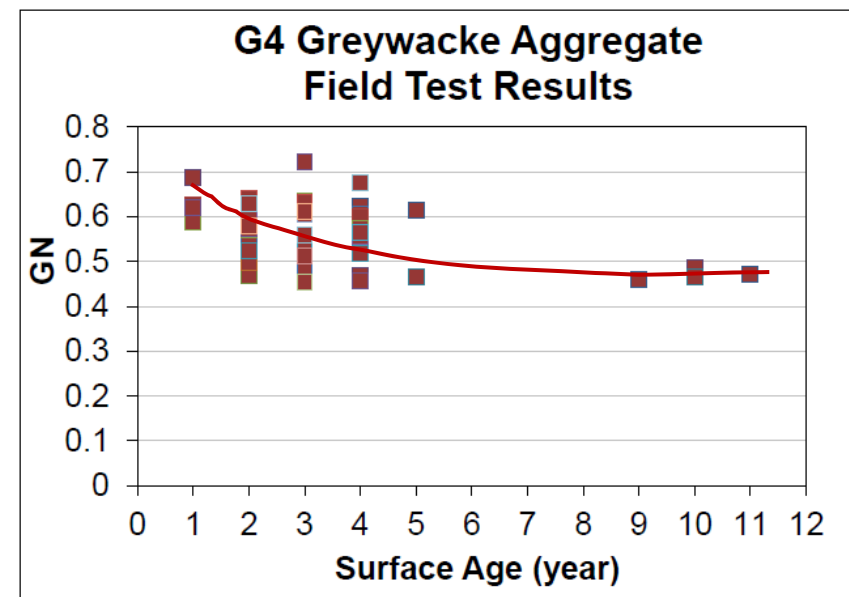
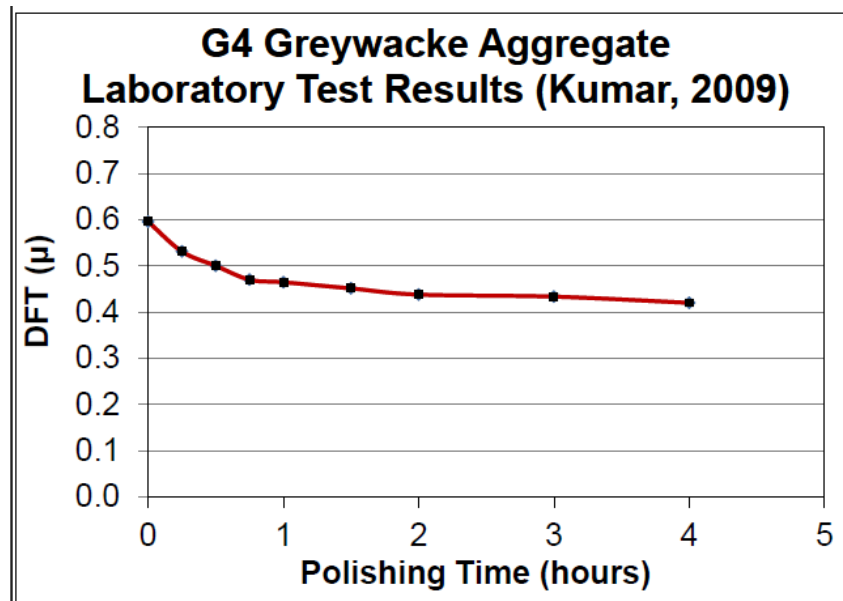


## Auckland Pavement Polishing Device

- Developed based on NCAT device
- Designed to accommodate NZ's higher macrotexture
- Undergoing studies at the UoA

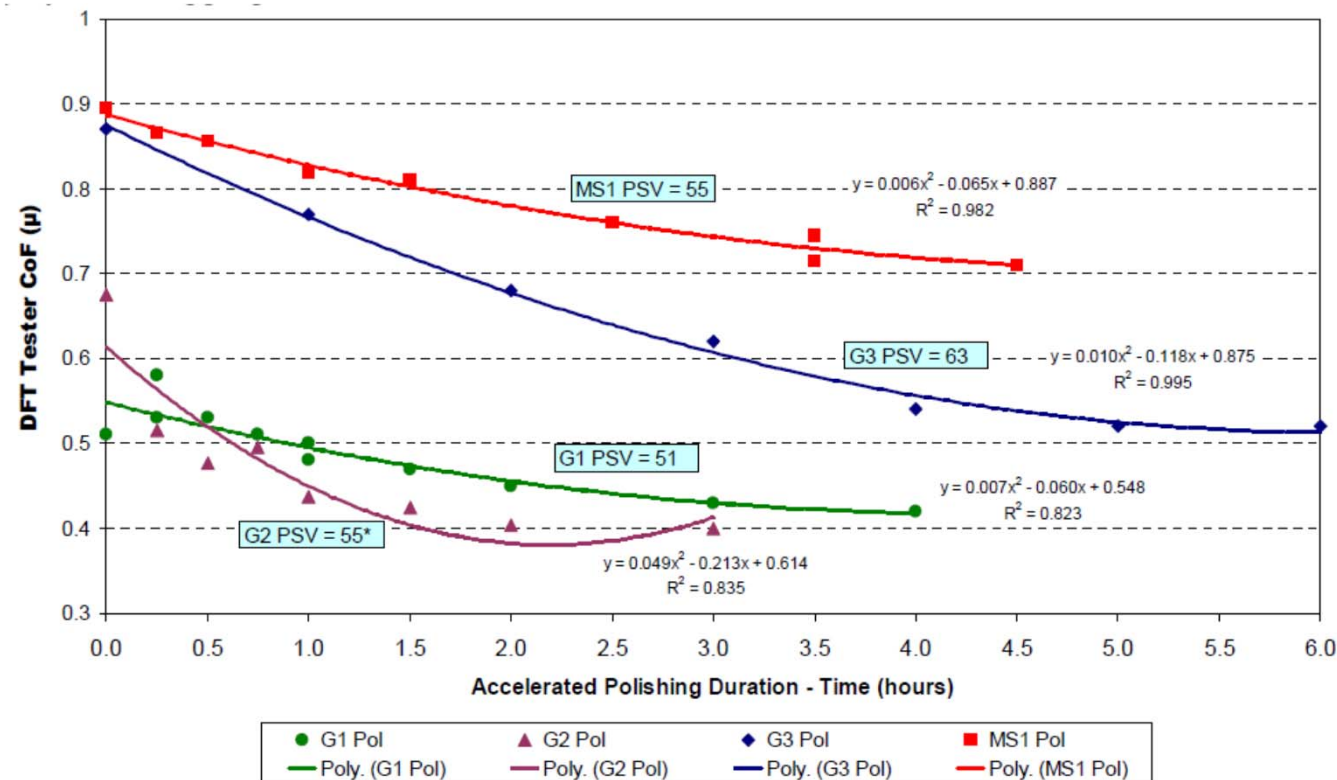


# Infield vs. Laboratory Results



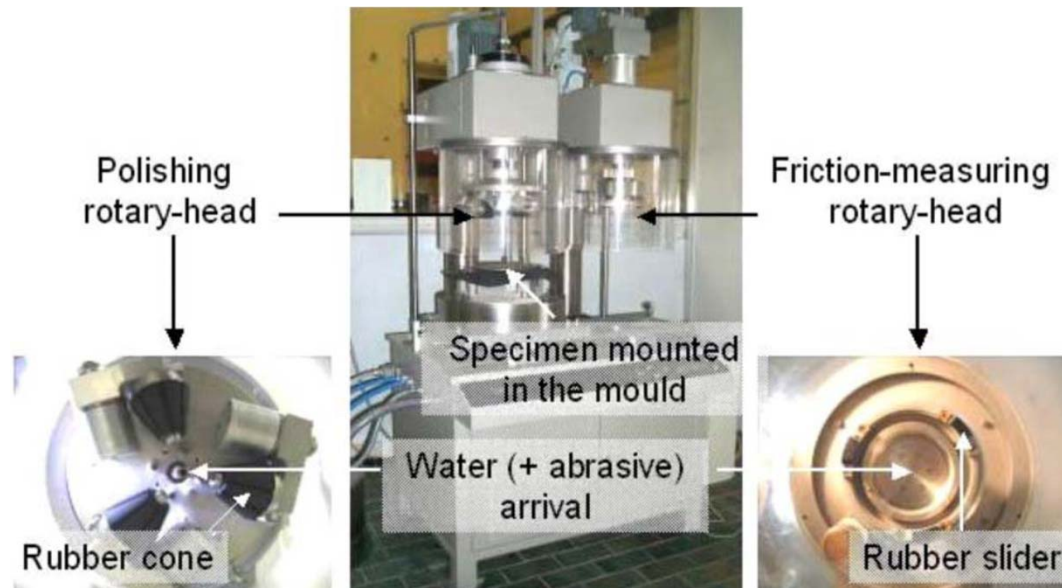
CAO, Q., NATAADMADJA, A. & WILSON, D. J. 2011. Correlation Between Laboratory and Field Performance of South Auckland Greywacke Aggregates. *3rd International Road Surface Friction Conference*. Gold Coast, Australia.

# APPD vs. PSV Test Results



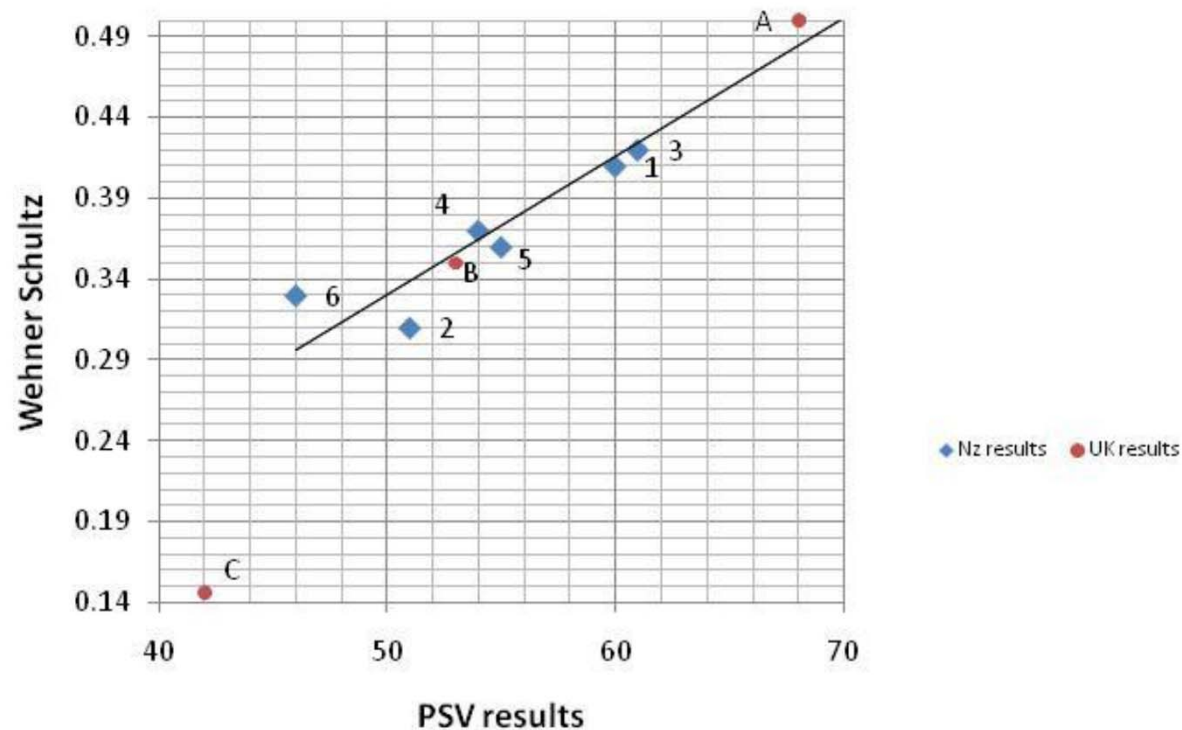
WILSON, D. J. & BLACK, P. M. 2008. Comparison of Skid Resistance Performance between Greywacke and Melter Slag Aggregates in New Zealand. *International Safer Roads Conference*. Cheltenham.

## Wehner/Schulze Device



- Able to both polish core and surface samples and measure the skid resistance values
- Able to record how the skid resistance of samples changes during the polishing process

# Wehner/Schulze vs. PSV Test Results



ARAMPAMOORTHY, H. & PATRICK, J. 2011. Potential of the Wehner-Schulze test to predict the on-road friction performance of aggregate. Wellington: NZ Transport Agency



## Conclusions

- 3 laboratory test methodologies trialled in NZ (PSV test, APPD and Wehner/Schulze).
- APPD has shown the greatest potential, but it still requires to be standardized.
- Wehner/Schulze has some advantages over other devices, but its usage in NZ roads still needs to be investigated further.

**Thank you**

# Questions?