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

Adelia D. Nataadmadja
Supervisors:
Dr. Douglas Wilson & Dr. Seosamh Costello
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

APPD vs. PSV Test Results

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

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?