

Chipseal Design

Duration
2 days

Domestic Fees
$1295 per person + GST

International Fees
$1295 per person + GST

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Factors affecting the design and the field performance of chipseal surfacings are complex. Local conditions can significantly influence the way a seal is designed to get the best performance.

Prior detailed knowledge of chipsealing materials is an essential requirement for this course. A short preparatory course “Chipseal Materials” is available for those who wish to update their knowledge (normally run the previous afternoon).

The treatment selection and design procedures from the textbook "Chipsealing in New Zealand" plus the recently-issued NZTA Specification P18 : 2025 “Specification for the Design of Chip Seals” and accompanying P18 Notes provide the basis for this course and a range of worked examples are included.

A problem-solving session in syndicate workgroups also aids understanding. In addition, the practical application of the NZTA P17 performance-based specification will be covered in detail.

Topics Include

- Understanding the stresses on a road surface
- Skid resistance basics
- Assessing chipsealing needs
- Pre-seal treatments
- Importance of addressing adhesion issues
- Design processes and options
- Worked design exercises
- Plant used in chipsealing construction
- Construction of first coats and reseals
- Analysis of faults, failures and fixes
- Quality assurance
- Contractual responsibilities and procedures for P17

On completion of this course participants will be able to

- Assess chipsealing needs
- Understand and undertake design steps required
- Determine pre-treatments required
- Determine and design appropriate surfacing treatments and binder application rates
- Calculate hot binder spray rates and chip application rates
- Identify essential spray preparation/spraying control, traffic control/compaction checks to ensure quality of seal
- Select plant for production requirements and job type
- Understand the contractual framework for P17 contracts
- Determine P17 acceptance criteria
- Carry out acceptance measurements and apply acceptance criteria to completed chipseals

Who should attend

People with limited knowledge of chipseal design and experienced practitioners wishing to update their knowledge in line with the approach in the "Chipsealing in New Zealand" textbook and in the application of the P17 specification. Personnel from Local Authorities, contractors and consultants will find this course particularly useful.

Entry recommendations

- To fully understand and successfully complete this course, attendees must already have a sound knowledge of the nature and properties of road surfacing component materials. Participants can gain this essential knowledge by first attending the NZIHT preparatory course Chipseal Materials, as knowledge of this subject matter will be assumed.
- It is recommended that attendees should also attend or have completed a Bitumen - Basic Safety course within the last five (5) years.
- For maximum benefit it is recommended that participants have the mathematical ability of at least NCEA Level 1

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NZIHT and this programme are part of Te Pūkenga – New Zealand Institute of Skills and Technology

Participants to bring to course

It may be helpful for participants to have access to a copy of the "Chipsealing in New Zealand" Text Book released by the NZ Transport Agency in 2006.

This book is now out of print, but a full copy is available on the NZ Transport Agency website: www.nzta.govt.nz (*choose Resources and Manuals and then Manuals. Scroll down until you see 'Chipsealing in New Zealand.')*





ADDITIONAL INFORMATION

Minimum numbers apply before a course is confirmed

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