

# DDSP 2025

## Diploma in Design and Specification of Plastics

INTRO



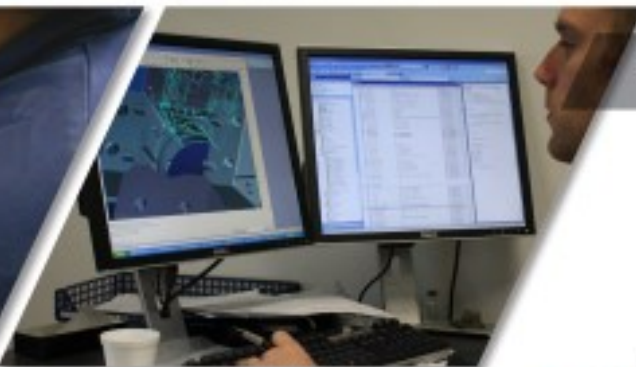
POLYMERS



PROCESSING



DESIGN



**AUCKLAND**

# DDSP 2025

## Diploma in Design & Specification of Plastics

Do you want to produce the best plastic parts possible? Join your colleagues and gain the essential knowledge provided by this industry-recognised plastics course. The Plastics New Zealand Diploma in Design and Specification of Plastics (DDSP) equips attendees to succeed in their careers within the Industry.

Plastic is an incredible material used extensively in the manufacture of a diverse range of products. This enables innovation and growth within many essential sectors of the NZ economy. It is a complex material with a wide range of functions, properties and manufacturing methods.

Whether you are a designer, specifier or processing technician you need an understanding of polymers and how they behave during processing. To avoid quality issues during manufacture you need to understand basic design fundamentals. To avoid negative environmental impacts, you need to consider best-practice design for the environment principles.

### DDSP INTRODUCTION

Learn the jargon you need to work within the plastics industry. Introducing you to the NZ Industry, it will give you an overview of the fundamentals of plastic polymers, processing and the design process. This module provides the foundation for the remaining DDSP modules. It can also be completed as a stand-alone course.

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objectives.. | Discover New Zealand's plastics Industry and its economic contributions.<br>Learn the essential steps involved in the design process for new products.<br>Find out how polymers are classified, their different properties, and typical applications for the most common plastics.<br>Explore the different types of plastic processing equipment.<br>Examine the environmental pros and cons around the use of plastics<br>Understand the basics of safe handling and use of plastics |
| Date.....    | Semester 1: Friday 14th February 2025, 9:00am – 5:00pm<br>Semester 2: Friday 5th September 2025, 9:00am – 5:00pm                                                                                                                                                                                                                                                                                                                                                                       |
| Venue.....   | Ellerslie Event Centre, 100 Ascot Avenue, Ellerslie, Auckland.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audience ... | Suitable for anyone employed in the plastics industry and for those outside the industry needing to develop a basic understanding of plastics                                                                                                                                                                                                                                                                                                                                          |

*"The DDSP has had a noticeable impact on the quality of the part designs produced by our engineers and a reduction in quality issues during manufacture."*

## DDSP POLYMERS

Discover the information you need to know to specify the right materials for your product. Learn how to properly troubleshoot production and quality issues. This module provides indepth information on the chemistry of polymers. Content includes different polymer families and how their configuration impacts their processing and end-use applications.

**Objectives..** Learn about the molecular building blocks of polymers and how their morphology (shape) impacts their properties.  
Explore thermoplastics in-depth learn how crystallinity effects behaviour.  
Discover the types of testing used and how they are used to define polymers.  
Learn a comprehensive procedure to help you select materials successfully.  
Explore the main polymer families, their differences and applications.

**Date.....** Semester 1: Thursday 6th – Friday 7th March 2025, 9:00am – 5:00pm  
Semester 2: Thursday 16th – Friday 17th October 2025, 9:00am – 5:00pm

**Venue.....** Ellerslie Event Centre, 100 Ascot Avenue, Ellerslie, Auckland.

**Audience ...** This module is intended for those in plastics design, operational, production or technical sales roles within the plastics industry or those who specify the use of plastics materials for their organisation.

## DDSP PROCESSING

Become more effective in your technical plastics or design role. In this module develop an advanced understanding of how various polymers behave during processing and how this impacts final part quality. Learn how additives and colourants are manufactured and how these can aid or impact processing and part performance.

**Objectives..** Understand the impact of additives on processing.  
Understand the thermoplastics polymer melting process.  
Learn the basics of extrusion, injection moulding and silicon moulding.  
Learn about the different types of additives and their uses.  
Explore how processing impacts polymer morphology and part performance.  
Examine the heat transfer process for thermoplastics.  
Explore how material mixing, dosing and drying impact processing and performance.  
Learn how thermoset polymers are processed.

**Date.....** Semester 1: Thursday 10th – Friday 11th April 2025, 9:00am – 5:00pm  
Semester 2: Thursday 6th – Friday 7th November 2025, 9:00am – 5:00pm

**Venue.....** Ellerslie Event Centre, 100 Ascot Avenue, Ellerslie, Auckland 1050

**Audience ...** This module is suitable for those in plastics design, operational, production or technical sales roles within the plastics industry or those who specify the use of plastics materials for their organisation.

# DDSP DESIGN

Learn how to ensure your plastic parts are of a high quality and manufacturable. This module explores the design rules that contribute to good part design for plastics from both a manufacturing and an environmental perspective. Design for more advanced manufacturing techniques is examined. Includes good tool design, prototyping, simulation and 3D printing.

**Objectives.** Learn the basic part design 'rules' for plastics and identify key considerations for effective design for manufacture and assembly.  
 Examine advanced manufacturing techniques including in-mold decoration, co-moulding, co-injection and gas/water injection.  
 Understand the basics of tooling including design features, ejection and gating.  
 Explore 3D printing, prototyping and CAE simulation.

**Date.....** Semester 1: Thursday 29th – Friday 30th May 2025, 9:00am – 5:00pm  
 Semester 2: Thursday 27th – Friday 28th November 2025, 9:00am – 5:00pm

**Venue.....** Ellerslie Event Centre, 100 Ascot Avenue, Ellerslie, Auckland 1050

**Audience ...** Suitable for those in plastics design, operational, production or technical sales roles with in the plastics industry or those who specify the use of plastics materials for their organisation.

# REGISTRATION

## Semester 1 2025

### Costs are GST Exclusive

- DDSP Introduction: .....Friday 14th February 2025...\$649 Members/\$785 Non-Members
- DDSP Polymers: ..... Thursday 6th – Friday 7th March 2025...\$849 Members/\$1035 Non-Members
- DDSP Processing: .....Thursday 10th – Friday 11th April 2025...\$849 Members/\$1035 Non-Members
- DDSP Design: .....Thursday 29th – Friday 30th May 2025...\$849 Members/\$1035 Non-Members

## Semester 2 2024

### Costs are GST Exclusive

- DDSP Introduction: .....Friday 5th September 2025...\$649 Members/\$785 Non-Members
- DDSP Polymers: .....Thursday 16th – Friday 17th October 2025...\$849 Members/\$1035 Non-Members
- DDSP Processing: .....Thursday 6th – Friday 7th November 2025...\$849 Members/\$1035 Non-Members
- DDSP Design: .....Thursday 27th– Friday 28th November 2025...\$849 Members/\$1035 Non-Members

In registering people to attend the DDSP Courses we/I agree to abide by the terms and conditions

Name(s).....

Company .....

Address.....

Phone.....Email .....

Special dietary requirements:.....

Total amount paid \$ .....Exc GST \$.....Inc GST

- Visa  Mastercard (If paying by credit card, an additional 3% fee is charged)
- Credit Plastics NZ bank account: ANZ. Auckland 01 1839 0035879 00
- Company Invoice

Name on card .....Number on card .....

Expiry date ...../..... Signature .....

# Diploma in Design & Specification of Plastics (DDSP)

## Terms & Conditions

These Terms and Conditions govern participation in the Diploma in Design & Specification of Plastics (DDSP) programme, organised by Plastics New Zealand Incorporated. By enrolling in the DDSP programme, participants and their sponsoring organisations agree to these Terms.

### 1. Course Requirements & Completion

- 1.1. The DDSP Diploma comprises four modules, delivered over seven days. Each day includes four learning sessions of approximately 1.5 hours each, running between 8:30am to 5pm. The exact length of the day depends on the number of questions raised by participants.
- 1.2. Attendance:
  - Participants must attend all scheduled sessions on each course day to qualify as completing that module. Participants are required to sign in and out each day.
  - Non-attendance or incomplete attendance may result in withdrawal from that module of the programme.
  - Charges apply for makeup sessions, subject to availability.
  - Where relevant, notification may also be made to sponsoring organisations of non-attendance or non-completion.
  - Unless otherwise agreed prior to starting the DDSP, the modules are to be completed in the following order: Introduction, Polymers, Processing, Design.
  - Participants may complete the Diploma in a single semester, or over several. Unless specifically agreed by Plastics NZ, the Diploma is to be completed within a 2-year timeframe.
- 1.3. Assignments:
  - Each module concludes with an assignment based on course content, distributed to participants at the end of each module.
  - Assignments must be completed individually and submitted within one month of the course. Extensions will be considered on a case-by-case basis based on illness, bereavement, high workloads or other such matters.
  - Assignments are typically marked within 4-6 weeks of the submission deadline. Participants must achieve a passing grade to complete the module.
  - Re-submissions for failed assignments may be allowed at Plastics NZ's discretion but may incur additional charges for additional marking time.
- 1.4. Certificates of Completion & Diploma Award:
  - Certificates of Completion are awarded to participants who successfully complete each module.
  - The Diploma in Design & Specification of Plastics is awarded upon successful completion of all four modules of the programme.
  - Certificates of Completion and the Diploma Certificate will be provided in electronic format, unless otherwise requested.
  - Where agreed by Plastics NZ prior to starting the DDSP and based on specific technical experience and/or prior qualifications, an individual participant may be awarded the full Diploma without completion of the first 'Introduction' module.
  - The decision to issue the certification, including any discretionary considerations, rests solely with Plastics NZ and is final.
  - Note: The DDSP is not a formal academic qualification but is an industry-recognised certification within New Zealand.

### 2. Enrolment Terms

- 2.1 Enrolments must include participant names, contact details, dietary requirements, and a purchase order number for invoicing if required. These details should be provided no later than one month before the course date.



# Diploma in Design & Specification of Plastics (DDSP)

## Terms & Conditions cont...

### 2.2 Payment:

- Unless otherwise agreed, invoicing will occur at the time of enrolment.
- Unless arranged prior, full payment must be received as per the specified invoice terms and prior to the start date of the course part.
- Non-payment may result in the participant being refused entry to the course.
- Late payments may incur additional charges.

## 3. Cancellation Policy

- 3.1. Plastics NZ reserves the right to cancel or reschedule course dates, noting that this is never done without due cause. In such cases, participants may transfer to another date without penalty or receive a full refund of the fees paid for the relevant module.
- 3.2. Participant substitutions are allowed with prior notification. Plastics NZ reserves the right to decline substitutions received too late to implement. Note that dietary requirements may not be accommodated if notified late.
- 3.3. Cancellations and non-attendance are subject to the following charges (GST exclusive):
  - 10 or more working days prior to the course date: No charge
  - 3 to 10 working days prior to the course date: \$110 per day plus a \$50 administration fee.
  - Within 3 working days or on the day of the course: Full course fees apply.
- 3.4. Exceptional circumstances (e.g. illness, bereavement) will be considered on a case-by-case basis. Supporting documentation may be required.

## 4. Course Information and Logistics

- 4.1. Course details, including venue information, parking and, schedules, will be provided to participants at least one week prior to the date for each module.
- 4.2. Hard-copy workbooks are supplied for each module. These materials are not available electronically.
- 4.3. Morning tea, lunch and afternoon tea are provided on course days. Dietary requirements must be received at least 3-days prior to the first day of each module to be accommodated.
- 4.4. Registration for each course day begins at 8:30am with commencement of teaching at 9am sharp. The scheduled finish time is 5pm. Participants are expected to attend the full day as scheduled. Where attendees are all present prior to 9am, and agree, the course may start earlier than 9am.

## 5. Code of Conduct

- 5.1. Participants are expected to behave professionally and respectfully throughout the course.
- 5.2. Plastics NZ reserves the right to remove any participant whose behaviour is deemed disruptive, inappropriate, or harmful.
- 5.3. Where a participant fails to meet expected standards of behaviour, or violates any other provision in these Terms, Plastics NZ may notify the participants sponsoring organisation.

## 6. Liability

- 6.1. Plastics NZ accepts no responsibility for personal property lost, stolen, or damaged during the training course.
- 6.2. Plastics NZ is not liable for any indirect, incidental, or consequential damages resulting from cancellation, rescheduling, or participant non-attendance.

## 7. Privacy and Data Use

- 7.1. Participant information, including dietary requirements, will be used solely for course administration and will be managed in accordance with Plastics NZ's Privacy Policy.

# Diploma in Design & Specification of Plastics (DDSP) Terms & Conditions cont...

- 7.2. By enrolling, participants consent to the collection, storage, and use of their personal data for the purposes outlined above.

## 8. Intellectual Property

- 8.1. All materials provided during the training course are the intellectual property of Plastics NZ and are protected by copyright law.
- 8.2. Participants may not reproduce, distribute, or share course materials without prior written permission from Plastics NZ.

## 9. Force Majeure

- 9.1. Plastics NZ is not responsible for failure to perform its obligations under these Terms due to events beyond its reasonable control, including but not limited to natural disasters, government actions, or other unforeseen circumstances.
- 9.2. In such cases, Plastics NZ will endeavour to offer alternative arrangements or reschedule the course.

## 10. Governing Law

- 10.1 These Terms are governed by the laws of New Zealand. Any disputes arising under or in connection with these Terms shall be subject to the exclusive jurisdiction of the New Zealand courts.

## 11. Amendments

- 11.1. Plastics NZ reserves the right to amend these Terms at its discretion. Any amendments will be communicated to participants promptly.

