

2018

# Diploma in Design and Specification of Plastics

PLASTICS NZ  
NEW ZEALAND'S INDUSTRY ASSOCIATION



## A detailed overview of the Diploma in Design and Specification of Plastics in New Zealand

The various stages of this qualification and the full qualification itself will provide a standard for determining the relative level of knowledge of plastics amongst practitioners, designers and specifiers and for a transportable national qualifications standard.

“Excellent Course - this has been missing from the education system for too long”

## 2018 DDSP Programme

Waipuna Conference Suites, 60 Highbrook Drive, Auckland.

### Part 1

An Introduction to Plastics Materials and Technologies

**Auckland** **Semester 1:** 23 February (to be held at Waipuna Hotel, 58 Waipuna Road, Mt Wellington, Auckland)

**Semester 2:** 14 September

### Part 2

Introduction to Plastics Materials and their Performance

**Auckland** **Semester 1:** 15-16 March

**Semester 2:** 4-5 October

### Part 3

Important Aspects of Plastics Product Design

**Auckland** **Semester 1:** 12-13 April

**Semester 2:** 1-2 November

### Part 4

The Chemistry of Plastics and How it Affects Properties

**Auckland** **Semester 1:** 7-8 June

**Semester 2:** 22-23 November

“Over all this Diploma has been really awesome - thanks heaps”

“Peter was excellent and made it easy to understand”

“A great course - highly recommended for a product/design engineer”

“Well worth it!”

“Excellent - good enthusiastic presentation - thank you”



## Presenters

Presenters are all experts in their field and include the following:

### Neil Edmonds

Neil is currently a Senior Lecturer and Director of Polymers and Coatings Science in the School of Chemical Sciences at the University of Auckland, as well as being the Programme Coordinator for the Post Graduate Certificate in Engineering (Plastics). He holds a Masters degree in chemistry and has an industry background in polymers. Neil has a long association with Plastics New Zealand and works on product development and problem solving with many sectors of the Chemicals Industry.

### Richard Wood

Richard has worked in the Plastics Industry in Europe, North America and NZ for over 30 years. In this time he has held various technical and commercial roles all involving in-depth discussions on new product and projects for new polymer applications. Richard currently works for TCL Hunt and has previously worked for 12 years with DuPont Engineering Polymers in NZ and Asia, as well as 10 years for ICI in the UK and North America. Additionally he has worked with EVC (PVC joint venture in Europe) and a minerals company supplying raw materials to the Compounding Industry.

### Steve Wilson

Steve is Managing Director of Talbot Technologies Ltd, a technical injection moulding and thermo-forming company that services International markets from Christchurch. He has over 34 years CEO experience, over 20 with the Plastics Industry. Steve is a graduate Mechanical Engineer with 1st Class Honours from Canterbury, was awarded the New Zealand Order of Merit for Services to Business, is a past President and Life Member of Plastics New Zealand, a Fellow of the Institute of Management, and was winner of the Emerging International Business Leader award at the 2010 New Zealand International Business Awards.

### Simon Wilkinson

Simon has been working with the plastics industry in New Zealand for the last 8 years as Plastics New Zealand's Environmental Projects Manager, delivering practical environmental initiatives to member companies nationwide. As well as Plastics New Zealand, Simon works with a wide range of businesses, business associations, and Councils, delivering practical environmental improvement programmes including energy efficiency, waste minimisation and pollution prevention. Simon's qualifications include: MSc (Research) School of Chemical Engineering, CIT, Cork, Ireland  
BSc (Honours) Environmental Science, Bath Spa University, Bath, England

## Structure of the Course

### Part 1 – Introduction to Plastics Materials and Technologies (1 day)

#### Who Should Attend

Employees of Manufacturing and Supply companies (raw materials design, tooling, machinery in the plastics industry), and of companies that make use of plastic components in a range of end use applications. Participants will come from such diverse functions as Sales, Marketing, Quality Assurance, Quality Control, Production Planning and Control, Customer Service, Purchasing, Design, Human Resources, General Administration, Warehousing, Project Managers, Technical Design, Production, Engineering and Design, and Product Managers. Engineering Design consultants, Tool Makers and Technical Purchasing employees would also benefit from this course.

#### Topics Covered

What are Plastics? Processes, Colourants and Additives. Assembly and Finishing processes. Product flaw identification. Plastic and the Environment. Value of using plastics. Enabling technology and others.

#### Other Information

Course registration will cost \$499 +gst for members of Plastics New Zealand, and \$599 +gst for non-members. There will be an assignment to be completed within 1 month of the course, and a certificate will be issued when the assignment has been completed and assessed. Comprehensive course notes are provided and a range of suitable texts are available for purchase.

### Part 2 – Introduction into Plastics Materials and their Performance (2 days)

#### Who Should Attend

Participants will typically be Technical staff who may not hold tertiary qualifications in polymer science and plastics engineering. These may include staff in Marketing, Quality Assurance, Quality Control, Sales, Technical Sales, Technical Design, Production Planning and Control, Engineers, Project Management, Tool Making and Product Management.

#### Topics Covered

Emphasis will be on practical aspects of the workplace environment and will include areas such as – Measurement of polymer characteristics and the implications of those characteristics; mechanical, thermal, optical, and barrier aspects of polymers related to practical applications; thermoset elastomers; unusual polymers for unusual applications; Practical material performance and introduction to specification sheets; the design for the environmental life cycle approach.

#### Other Information

Registration costs for members of Plastics New Zealand is \$699 +gst and \$799 +gst for non members. There will be an assignment to be completed within 1 month of the course. Comprehensive course notes are provided and there is a range of books available for purchase.

“I will be booking my staff in next year”

“Peter was an excellent presenter, interesting, fun, passionate and knowledgeable”

“Great course – well worth while”

“Well presented and at an appropriate level”

“Very informative, speakers very professional and knowledgeable”



“Well conducted  
and thought out -  
learnt heaps”

“The ‘rules of thumb’  
were the most  
useful...”

“The mould design  
information was  
the best”

“Part design  
fundamentals was  
also worthwhile”

For further information  
please contact:

Kelly Buchanan-Johns  
Plastics New Zealand  
Phone 255 5662 ext 1  
ddsp@plastics.org.nz

### Part 3 – Important Aspects of Plastic Product Design (2 Days)

#### Who Should Attend

Participants will be technical staff with tertiary qualifications in fields other than polymer science and plastics engineering such as Design Engineer, Tool Designer, Senior Tool Maker and Tool Manager.

#### Topics Covered

Tooling considerations when designing products; design principles; assembly techniques (tolerance, process capability); sustainable design; co-moulding; additives/stabilizers; codes of practice and others.

#### Other Information

Registration costs for members of Plastics New Zealand is \$699 +gst and \$799 +gst for non members. Comprehensive course notes are provided and there is a range of books available for purchase. There will be an assignment to be completed within 1 month of the course.

### Part 4 – The Chemistry of Plastics and How it Effects Properties (2 days)

#### Who Should Attend

Participants will be technical staff, probably with tertiary qualifications in fields other than polymer science and plastics engineering. In particular it will appeal to Designers, Materials Specifiers, Purchasing, Plastics Production Supervisory and Design Engineers.

#### Topics Covered

This course will be polymer specific. We will strive to include polymers used in the New Zealand Industry and content will, to some extent, reflect the interests of the participants. Understanding of polymers for selection against application and design criteria; suitability of polymers for specific uses; over view of high performance polymers; strengths and weaknesses of various polymers in relation to performance criteria; and the effects of additives on polymers are some of the main areas that will be covered.

#### Other Information

Registration costs are \$699 +gst for members of Plastics New Zealand and \$799 +gst for non members. Comprehensive course notes are provided and there are a range of books available for purchase. There will be an assignment to be completed within 1 month of the course.