

## Who Should Attend?

This course has been designed for operators of extrusion welding equipment. The course would also be of value to plastic fabricators and mining personnel required to maintain plastic piping and lining systems.

## Session One (theory) - Day One

### Structure & Material Characteristics

- Polyethylene (PE) & Polypropylene (PP) & Poly Vinyl Chloride (UPVC)
- Molecular weight
- Melt Flow Behaviour
- Tensile Strength (stability)
- Strain (elongation)
- Thermal Conductivity
- Specific Heat
- Melting Point

## Session Two (theory & practical)

### Hot Air Welding of UPVC

- Principals of Welding (preparation, equipment, procedures)
- Welding Stresses
- Parameters
- Safety Precautions
- Demonstrate competencies in:
  - Pad Welds
  - Butt Welds
  - Fillet Welds

## Session Three (theory & practical)

- Identification of Plastics

### Test Procedures

- Spark
- Weldability (material)
- Stretch (weld rod)
- Adhesion (extrusion weld)

## Session Four ( theory & practical ) - Day Two & Three

**Extrusion Welding – Students will be able to explain/carry out:**

- Principals of operation
- Variations in equipment
- Quality control
- Welding parameters:
  - ⇒ Melt temperature
  - ⇒ Pre heat material temperature
  - ⇒ Air temperature
  - ⇒ Material output
  - ⇒ Air quality
  - ⇒ Welding pressure
- Theoretical welding speed
- Design of welding shoes
- Operating procedures
- Demonstrate competencies in:
  - ⇒ Single V butt
  - ⇒ Double V butt
  - ⇒ Single fillet
  - ⇒ Double fillet
  - ⇒ Edge weld overlap
- Safety

## Session Five ( practical exam)

Demonstrate competency in all welded joints. All joints to be tested on completion.

## Session Six ( theory exam)

Achieve 100% in an **open book** exam consisting of no less than 20 questions, some oral questions may also be incorporated at the discretion of the trainer.

## Course Pre-requisites

Nil Required

Preferable to have attended a PE butt & electrofusion welding course and have experience in the plastics industry.

## Course Outcome

After successful completion of the theoretical and practical components, students will be issued with a Certificate covering the competency of PMBWELD309B Weld plastics using extrusion and injection techniques, students may also complete RPL to achieve Personal Identification Number and Certified Welders Card.

### Dress & Personal Protective Safety Equipment Code For Training Practical Work

- Steel capped boots
- Long trousers
- Shirt with collar
- Safety glasses

## REGISTRATION FORM

Name: .....

Company: .....

Address: .....

Postcode .....

Tel: ..... Fax: .....

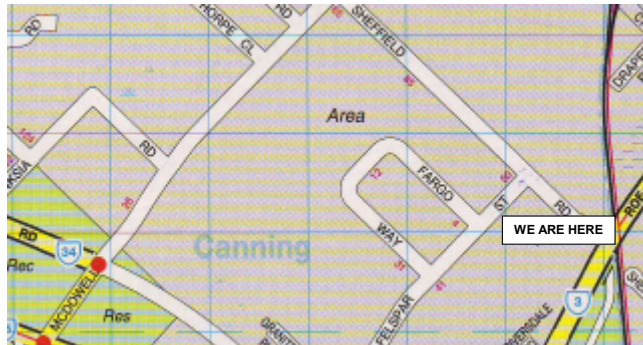
Yes, I would like to enrol personnel in the  
extrusion welding of polyethylene & polypropylene  
course.

.....  
.....  
.....

My cheque for \$ ..... made payable to the  
Polymer Fusion Technology.

Forward Registration Form to:

The Manager  
P.O. Box 59,  
Welshpool. DC  
WA 6986  
Fax: 08 9258 9555



## PMBWELD 309B

# Extrusion Weld Plastics Using Extrusion and Injection Techniques of UPVC, Polyethylene & Polypropylene

Providing Training, Testing and QA Services  
Polymer Fusion Education Pty Ltd ABN: 47 102 473 049

## Course Dates/Times

The course is offered on a regular basis from  
Perth, . On-site courses are available upon  
request. Start times are 8.00am and finish times  
are 4.30pm.

## Course Duration

Generally 24 hours over three days.

## Course Fee

One fee when conducted in Perth, WA, a second on-site  
fee available upon request.

**\*Payment is required prior to course.**

**BCITF APPROVED.**

## Venue

125 Sheffield Road, Welshpool. WA

## Lecturer

Course delivered by : David Burge, Adrian Zouch, Maxine  
Minchin.

## Enquires

For further information please contact: **KELLY**

Tel: 08 9258 9444 0400 219 408

Email: [pft@inet.net.au](mailto:pft@inet.net.au)

Web: [www.pft.com.au](http://www.pft.com.au)

## Refund Policy:

Should a course be cancelled at the initiative of Polymer Fusion  
Technology, for any reason, all participants will receive a full  
refund.

Should a participant withdraw after the start of a training program  
a refund or credit will be considered depending on the  
circumstances.

Where a minimum number of students are required to run a  
course, no refund will be given once the course is confirmed to  
the participants.