

# Hands-on Course in Drying / Formulation



October 2010

**Drying Course**  
Mon 25<sup>th</sup> - Tue 26<sup>th</sup>

**Formulation Course**  
Wed 27<sup>th</sup> - Thu 28<sup>th</sup>

ProCepT has built up more than 15 years of experience in **R&D Agglomeration, Coating and Drying applications**. Through these pragmatic courses we offer our expertise in the field of Formulation and Drying. Both 2 day intensive courses are intended to renew or learn practical theory through lectures on the subjects as well as hands-on training and sharing of knowledge.

The **Formulation Course** will emphasis on the different process equipment technologies and techniques available for formulation development. Besides lectures and demonstrations, practical group exercises will handle case studies through the use of Fluid Bed, High Shear Wet & Melt Granulator, Extruder/Spheroniser, Coater and Tablet Press.

The **Drying Course** will handle drying development. Lectures and demonstrations on different drying techniques (convection, conduction and radiation) will alternate with hands-on trainings on applications such as spray drying, vacuum drying, gas stripping, microwave drying, nutsche filter drying and fluid bed.

Previous ProCepT courses have been well attended and very positively evaluated!

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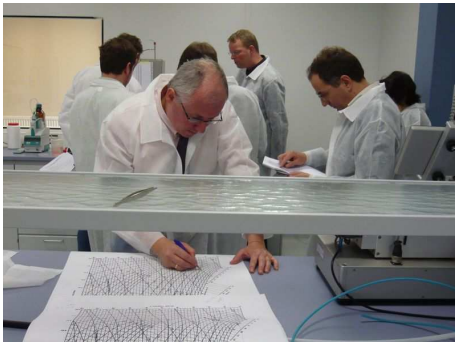
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**ProCepT**<sub>n.v.</sub>  
Processing Concept



### Who should attend

Research and development  
Pre-formulation team members  
Formulation scientists  
Process and project engineers



The Course language will be English. An approved Certificate of Attendance will be given to each participant at the end of the Training.



### Timetable

Registration will be at 8.45am and the Course will start promptly at 9.00am. Lunch will be between 12.30pm and 1.30pm. An open forum will be held at the end of each day. The Course will finish at about 5.00pm.



## Hands-on Formulation Course

30% Theory  
70% Hands-on

### Day 1

**Wet Agglomeration;** High Shear, Fluid Bed, Extrusion, Spheronisation

### Day 2

**Encapsulation;** Spray Drying, Fluid Bed, Perforated Drum Coating, Tableting

### Subjects

Critical process parameters; trending, influencing, reporting, interpretation  
Different excipients used in wet agglomeration  
Micro encapsulation  
Solid dispersions and Matrix Spray Drying  
Melt processing  
Different Coating polymers  
Pellet & Powder Coating in Fluid bed  
Film and Enteric coating of capsules...

## Hands-on Drying Course

30% Theory  
70% Hands-on

### Day 1

**Convection Drying;** Spray Drying, Fluid Bed, Coating

### Day 2

**Conduction Drying;** Vacuum      **Radiation Drying;** Microwaves

### Subjects

Drying kinetics of the different drying phases  
Mass and Energy Balance  
Relative Humidity (Mollier diagram)  
Heat of evaporation and effect on drying time  
Vapour pressure versus evaporation temperature  
Low temperature drying with microwaves  
Gas stripping  
Effects from solvates, hydrates and polymorphism ...

### Course Fees (for early registration, 2months before start of course a 10% discount applies)

|                        | Single course (2 days) | Both courses (4 days) |
|------------------------|------------------------|-----------------------|
| Single registration    | € 1370 /person         | € 2460 /person        |
| Double registration*   | € 1230 /person         | € 2300 /person        |
| Multiple registration* | € 1150 /person         | € 2200 /person        |

\* Double and Multiple registrations must be from the same company in order to qualify for discounted rates.

Course fee is subject to Value Added Tax (21% VAT) irrespective of the country of origin of participants. Most VAT registered companies/organizations can reclaim this tax. The fee includes full personal participation, extensive bound course notes, lunches and light refreshments, on all days of the course. Dinner at night in Gent on Tuesday is also included. Accommodation and travel is not included.

### Accommodation

A room rate of €100 per night single with bathroom, inclusive of breakfast, exclusive of VAT has been negotiated for participants at the Ibis hotel in the historical town centre of Gent. Bookings can be made through ProCepT together with registration. Transfer between the Ibis hotel and course location will be organized and is included in the course fee.

### Registration

Please fill in our on-line registration form on our website: [www.procept.be](http://www.procept.be)

Places are limited in order to maximize the knowledge transfer. Applications will therefore be accepted on a first come basis (confirmed registration and full payment).

All applications will be acknowledged and an invoice will be issued. Payments are due before participating. There will be no refund due to cancellations made within 14 days prior to the start of the course. Attendees may be substituted at any time.