# FOAMGLAS® INSULATION GLOBAL TRAINING PROGRAMS

**FOAMGLAS**°

Pittsburgh Corning



#### Pittsburgh Corning global training

Pittsburgh Corning's long-standing commitment to providing industry-leading, world-wide training support is highlighted by the opening in Fresno, TX, USA, of our third FOAMGLAS® insulation training center. This center, along with our existing, purpose-built centers in China and Europe, provides global FOAMGLAS® insulation training opportunities which are unmatched in the insulation industry.

Each center provides a dedicated training environment with simple and complex pipework rigs from 3" to 24" diameter which provide realistic learning situations for demonstrations and hands-on training.

Pittsburgh Corning continues to provide world-wide mobile training on job sites and at customer facilities.

The Pittsburgh Corning training programs have been developed over several decades and refined to take into account the real-world experience and requirements of participants. As a result, the Pittsburgh Corning Technical Services team can provide you with both standardized and specially-customized training programs which cover all aspects of working with FOAMGLAS® insulation on all kinds of industrial process systems and utilizing the wide range of Pittsburgh Corning accessory products.

#### **Typical training programs**

A typical visit to one of our training centers will include a tour of our manufacturing and testing facilities, and all of our programs include both theoretical and practical training options. Learning about FOAMGLAS® insulation in our classroom gives a good preparation for using and getting the best out of cellular glass insulation. The practical sessions cover safe handling and working with FOAMGLAS® insulation, and offer the opportunity to install insulation on pipe rigs in a realistic range of sizes and settings. We look at the most common problems that can be encountered on a jobsite and demonstrate the tricks to easily solve these. The training programs also look at working with the range of Pittsburgh Corning mastic, adhesive and jacketing accessory products.

The maximum benefit from the training programs will be experienced in the training center locations, but where it is not possible for clients to travel to our training centers, the Pittsburgh Corning mobile training unit can be brought to your offices or job site.

#### Who should attend?

Professional organizations often choose the factory visit - demonstration combination to supplement the education of their new-hires, students and apprentices to give them rapid familiarization with market-leading FOAMGLAS® insulation systems. Major engineering companies and owners of industrial processes such as upstream and downstream oil and gas facilities, and pharmaceutical plants value these demonstrations for their engineering staff because they enhance their ability to design and specify better-performing insulation systems. Inspectors will gain valuable experience in how to evaluate installations in detail typically not covered by many standard industry courses.

#### What will my team achieve?

Our objective is to ensure that everybody who specifies, installs, or inspects insulation systems is given the opportunity to optimize their skills to be able to complete well-designed, well-installed, rapidly-completed and safe FOAMGLAS® insulation projects.

The new FOAMGLAS® insulation training center in Fresno, TX, features 2000 sq feet of practicaltraining floorspace, giving ample room for large groups to be split into multiple teams. Training rigs including large and small diameter pipe rigs with valves, T pieces and elbows give an authentic, but air-conditioned, learning environment The entire Pittsburgh Corning range of accessory products can be made available for a complete hands-on experience. The practical area is complemented by dedicated classrooms

complemented by dedicated classrooms and a display area for floor, duct and pipe applications.
Every facility has been provided to create the best possible opportunity to become familiar with using and specifying FOAMGLAS® cellular glass insulation systems.



FRESNO, TX, USA



TESSENDERLO, BELGIUM, EUROPE



YANTAI, CHINA



#### Introduction to FOAMGLAS® cellular glass insulation

Because every client is an individual, training can be tailored to specific requirements. Pittsburgh Corning has developed a wide range of different training programs to cater to everyone's needs. Whether you are an owner, engineering company, distributor, or contractor, elements of the following programs can be selected to suit your needs.

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	Owners	EPC	Agents Distributo	Contractor	Inspectors
Factory tour				_	
Introduction to Pittsburgh Corning	F	F	F	F	F
Overview of manufacturing process	F	F	F	F	F
Basic health & safety	F	F	F	F	F
Tour of FOAMGLAS® production facility	F	F	F	F	F
Laboratory demonstrations					
Compressive-strength testing	F	F	F	F	F
Closed-cell measurement	F	F	F	F	F
Density measurement	F	F	F	F	F
Thermal conductivity measurement	F	F	F	F	F
Smoke development/fire propagation	F	F	F	F	F
FOAMGLAS® insulation theory					
Introduction to FOAMGLAS® insulation	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>
Key FOAMGLAS® insulation properties	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
Application overview	<b>✓</b>	<b>√</b>	<b>✓</b>	✓	<b>√</b>
Water in insulation	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
Prevention of insulation failures	<b>✓</b>	<b>√</b>	<b>✓</b>	✓	<b>√</b>
Prevention of corrosion under insulation (CUI)	<b>✓</b>	<b>✓</b>	✓	✓	<b>√</b>
FOAMGLAS® insulation above-ambient systems	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>
FOAMGLAS® insulation cryogenic systems	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
Fire protection	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>
Pittsburgh Corning accessory products	<b>✓</b>	<b>√</b>	<b>√</b>	✓	<b>✓</b>
Pittsburgh Corning value-added services	✓	✓	✓	✓	✓

 $\checkmark$  Standard content F factory visit content







TESSENDERLO, BELGIUM, TRAINING CENTER

#### Demonstrations of how to install FOAMGLAS® insulation

Where familiarization is required or time is limited, we can demonstrate how to work safely and effectively with FOAMGLAS® insulation. There is opportunity for some voluntary participation to keep all the attendees involved and engaged.

	Owners	EPC	Agents Distributor	Contractor	Inspectors
Handling FOAMGLAS® insulation					
Working safely with FOAMGLAS® insulation	/	/	/	<b>√</b>	1
Safety data sheets & warning symbols	/	/	/	<b>√</b>	<b>✓</b>
Safe use of tools	/	<b>/</b>	/	<b>√</b>	1
Demonstration of FOAMGLAS® pipe insulation					
Inspection of pipe-surface condition	<b>√</b>	<b>√</b>	<b>✓</b>	R	✓
Inspection of insulation and accessory materials	<b>✓</b>	<b>✓</b>	/	R	<b>✓</b>
Verification of documentation for materials	<b>√</b>	<b>√</b>	<b>✓</b>	R	✓
Verification that correct material, coatings, fab adhesives used	<b>✓</b>	<b>√</b>	<b>✓</b>	R	✓
Verification of physical condition of materials	<b>√</b>	<b>√</b>	<b>✓</b>	R	✓
Installation of straight sections of insulation	<b>✓</b>	<b>√</b>	<b>✓</b>	R	✓
Square cuts using a miter box	<b>√</b>	<b>√</b>	<b>✓</b>	R	✓
Demonstration of joint staggering in single-layer systems	<b>✓</b>	<b>√</b>	<b>✓</b>	R	✓
Selection & application of joint sealants: cryogenic, chilled water, hot	<b>✓</b>	<b>✓</b>	✓	R	✓
Securement of insulation using filament tape or metal banding	<b>✓</b>	<b>✓</b>	✓	R	<b>✓</b>
Fitting insulation to irregular surfaces (rubbing, gouging)	<b>✓</b>	<b>✓</b>	✓	R	✓
Application of insulation over trace heating	<b>✓</b>	<b>✓</b>	✓	R	✓
Repair or replacement of damaged pieces	<b>✓</b>	<b>✓</b>	✓	R	✓
Installation of fittings: Elbows, T-pieces, reducers	<b>✓</b>	<b>✓</b>	✓	R	<b>✓</b>
Fabricating T pieces by making angled cuts with a miter box	<b>✓</b>	<b>✓</b>	/	R	✓
Installation of valve & flange boxes	<b>✓</b>	<b>√</b>	<b>✓</b>	R	✓
Terminations: end of day & vapor stops	<b>√</b>	<b>√</b>	✓	R	✓
Penetrations: sealing	<b>✓</b>	<b>√</b>	✓	R	✓
Joint staggering in double-layer systems	<b>✓</b>	<b>✓</b>	<b>✓</b>	R	✓
Application of PITTCOTE® mastic coatings	<b>✓</b>	<b>√</b>	✓	R	✓
Application of PITTWRAP® jacketing	<b>√</b>	<b>✓</b>	✓	R	✓
Application of pre-jacketed insulation sections	✓	✓	<b>✓</b>	R	<b>√</b>

✓ STANDARD CONTENT R RECOMMENDED



TESSENDERLO, BELGIUM, TRAINING CENTER DEMONSTRATION



TESSENDERLO, BELGIUM, TRAINING CENTER DEMONSTRATION

#### **Practical hands-on training using FOAMGLAS® insulation**

When more time is available or the participants have higher-level skills or expectations, there are programs which offer full involvement and the learning of new techniques. The Training Center environment is focused around the participants to enable them to learn quickly how to improve installed quality and installation efficiency.

installed quality and installation efficiency.	Owners	EPC	Agents Distributors	Contractors	Inspectors
Practical hands-on training					
Basic practical skills:	0	0	0	R	✓
Installation of straight sections of insulation	0	0	0	R	✓
Square cuts using a miter box	0	0	0	R	✓
Application of joint sealants	0	0	0	R	✓
Securement of insulation using filament tape or metal banding	0	0	0	R	✓
Installation of fittings: Elbows, T-pieces	0	0	0	R	✓
Fabricating T pieces by making angled cuts with a miter box	0	0	0	R	✓
Fitting insulation to irregular surfaces (rubbing, gouging)	0	0	0	R	✓
Fabricating simple elbows	0	0	0	R	✓
Cold/cryogenic work additional skills	0	0	0	R	✓
Simple terminations	0	0	0	R	✓
Cryogenic vapor stops	0	0	0	R	✓
Penetrations: sealing	0	0	0	R	✓
Application of PITTCOTE® mastic coatings	0	0	0	R	✓
Application of PITTWRAP® jacketing	0	0	0	R	✓
Hot work additional skills	0	0	0	R	✓
Application of insulation over trace heating	0	0	0	R	✓
Simple terminations	0	0	0	R	✓
Penetrations: sealing	0	0	0	R	<b>✓</b>
Application of PITTCOTE® mastic coatings	0	0	0	R	✓
Application of PITTWRAP® jacketing	0	0	0	R	✓
Mixing & application of adhesives	0	0	0	R	✓
Inspection of FOAMGLAS® insulation systems					
Acceptance criteria for fabricated FOAMGLAS® insulation	R	R	R	R	✓
Acceptable joints	R	R	R	R	✓
Acceptable joint sealing	R	R	R	R	✓
Acceptable repairs	R	R	R	R	✓
Acceptable PITTCOTE® mastic coating thicknesses/application	R	R	R	R	✓
Acceptable penetration sealing	R	R	R	R	✓
Acceptable vapor stopping	R	R	R	R	✓
FOAMGLAS® insulation training courses for your special requirements					
Pre-project/startup re-familiarization	0	0	0	R	R
Pre-project/startup familiarization with new products or techniques	0	0	0	R	R
Client specification familiarization	0	0	0	0	0
Facilities for comparative insulation installations	0	0	0	0	0
Support for, & integration into, your existing training program	R	R	R	R	R

 $\checkmark$  Standard content R recommended O optional

### Examples of key skills taught for working with FOAMGLAS® insulation



Application of joint sealants



Spreading of joint sealants to full-depth



Accurate cutting



Correct staggering of joints



Use of factory pre-fabricated fittings



Production of more-accurate joints



Application over trace heating





Application of scrim and mastic

## **FOAMGLAS**

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