

# ADVANCED COATING TECHNOLOGIES

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## **BASIC TRAINING FOR APPLICATION OF PUA SPRAY ELASTOMERS**

### **Introduction**

The professional application of two component spray Elastomers with high and low pressure proportioning units is not recommended without any specific school or training.

Comprehensive knowledge and experience about material properties and operating mode of the unit and its pressurised and mobile/electrical components are the basic requirements for a successful and safe application of polyurea coating systems. A basic training comprises a detailed theoretical introduction, in which every single step of the application is described in a coherent and comprehensible way.

Subsequently the participants will learn step by step the manipulation and handling of raw materials and the proportioning unit. Besides general requirements, the focus will be set on the specific targets of the client, which includes different types of coating, primers, substrates and spraying technique.

The course agenda can be changed or adapted to the individual needs and targets of the client. For example: Less theory - More practical training ( Different set-ups, different materials, spray technique, ...)

### **COURSE AGENDA**

- Polyurea introduction, material limitations
- Plural-component mixing and ratio issues intro
- Process and Ambient Temperature Issues
- Aromatic vs. Aliphatic vs. Polyaspartic Esters
- Polyurea physical properties and testing procedures
- Safety – Materials

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- Safety – PPE Personal Protection Equipment
- Plural component vs. single component
- High pressure vs. low pressure
- Power requirements and auxiliary equipment needed
  1. Detailed description of the major components and operation theory of Polyurea spray machines
  2. Function/types of material supply systems
  3. Function/types of pump systems
  4. Function/types of heating systems
  5. Function/types of hose heat systems
  6. Function/types of spray gun systems
  7. Typical machine, trailer rig and aux component set-up.
  
- Job site planning and preparation
  1. Job site review and pre-job documentation
  2. Access to job site
  3. Necessary tools and utilities for the job
  4. Substrate testing in preparation for application
  5. Atmospheric testing in preparation for application
  6. Application Log
  
- Specific configuration for Polyurea application
- Procedures for proper start-up and operation
- Ratio/Pressure/Heat verification
- Daily maintenance procedures and shut-down programs
- Surface conditions
- Hand held spray techniques— "*Hands-on spraying technique*"
- Robot spraying
- Recognizing Polyurea application problems— "*Real world problems*"
- Demo – Spray Techniques
- Troubleshooting Polyurea
  1. Chemical Systems

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2. Substrate Issues
  3. Personnel/Technique issues
- Troubleshooting - Equipment Issues
    1. Material supply
    2. Heating systems
    3. Pumping systems
    4. Hose systems
    5. Gun systems
  - Equipment Review – Monitoring & Communication
  - Maintenance Review
  - Testing of Applied Polyurea - field quality control techniques
  - Course Review

In addition we provide hands on training on on different tools and spray equipment:

Low pressure unit

High pressure unit 1:1

High pressure unit variable ratio: 5:1 – 1:5

Field spray robot

Spray guns

## **RATES**

On request