

## Automotive

Aerogen has developed a number of innovative systems for the Automotive industry. Many different components benefit from these systems in almost every type of vehicle around the world. They are considered a crucial element of paint and production lines.

Polypropylene components require surface treatment in order to achieve satisfactory adhesion. The Aerogen Automotive Station utilises the chemical properties of a gas flame to do this.

Free radicals are produced in the flame, which combine with the substrate to modify its surface wettability and achieve the optimum dyne level. The principle of the technology is based on the fact that oxygen-bearing free radicals such as OH, COOH or CHO are produced in the 'active zone' of the flame. These radicals, but specifically the OH radicals, link onto the long molecular chain of the Polyolefin, which alters the surface energy. In order to achieve the optimum results it is necessary to be able to control the major parameters, which are:

### The Air Gas Ratio - The Energy Gap - The Energy Flux

Aerogen systems allow for the optimization of these parameters, ensuring wettability levels are suitably maintained.

The advantages of Aerogen's Flame Treating Stations is the incorporation of the Flame Plasma Analyser, this ensures that optimum treating conditions are achieved by extremely precise control of the air and gas mixture. Handling of the burner on a robot allows for the burner to efficiently treat the surface area of any product.

Flame treatment is a well-proven method for enhancing adhesion qualities.



### Our Technology

Flame surface treatment of Polyefin components.

Increasing adhesion for painting, bonding and foam filling.

### Main Advantages

- Increasing of Bonding
- No VOC Emission
- Fully Automatic In Line Process
- Repeatable Results
- No Ozone Emission
- Low Running Costs
- Low Maintenance
- Simple to Operate

### Main Applications

- Bumpers
- Body Side Mouldings
- Spoilers
- Side Railings
- Instrument Panels
- ABC Door Post Covers
- Wheel Trims
- Mirror Covers