

DYNE
TECHNOLOGY

Corona Treatment



Corona Treatment



What is Corona?

Corona is a visible electrical discharge which occurs when a high voltage, high frequency electrical potential is applied to a small diameter electrode in relatively close proximity to an electrical ground. The resulting electrical discharge is known as a "Corona Discharge". This corona discharge will cause partial ionization of the surrounding atmosphere and can be used for surface modification.

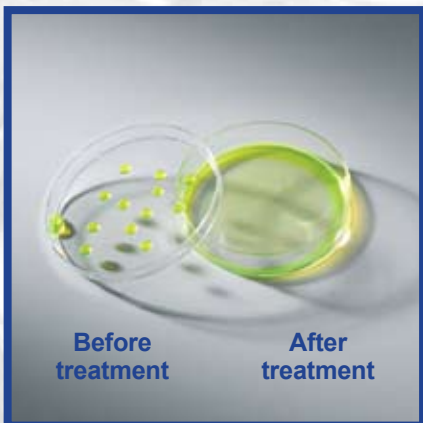
How does Corona Treatment work?

To obtain good adhesion to materials that have a low surface energy i.e. low or non-polar materials like PP, PE, HDPE etc. we create a high voltage, high frequency electrical discharge or corona discharge in close proximity to the part to be treated. This high energy corona discharge is attracted to the material severing the molecular bonds on the surface. These severed bonds are now free to attach to free radicals and other particles that exist in the highly active corona discharge environment. The resulting formation of additional polar groups on the material surface have a strong chemical attraction to inks, paint, coatings, adhesives etc. leading to significantly enhanced surface energy and therefore adhesion.

What Corona can do for you.

Dyne Technology supplies Corona Treatment solutions to improve the surface energy of plastic and rubber parts prior to the application of paints, printing inks, adhesives, coatings, sealants etc. Corona surface modification equipment is widely used throughout a diverse range of industries and onto an ever increasing range of substrates. Our growing list of customers includes many in the following industries: medical, automotive component, electronics, electrical cable, extrusion, ophthalmic lenses, pipes, tubes and many more. Through our many years of experience and continuous product development we have become one of the leading suppliers of Corona Surface Modification equipment.

Whatever your equipment needs are in the field of Corona Surface Modification, Dyne Technology is here to help you find the most appropriate surface modification technology and equipment to solve your problem.



Components processed:

- Conductive & non-conductive narrow webs
- Electrical cables
- Pipes & Tubes
- Medical devices
- Automotive components
- Board & Foam
- 3D parts
- Extruded profiles
- Domestic appliances
- And many more.....

Materials processed:

- PP
- PEEK
- PA
- TPE
- PC
- PE, HDPE
- Composites
- Acrylics
- Films
- And many more.....

Surface modification prior to:

- Bonding/Gluing
- Coating
- Laminating
- Labelling
- Painting
- Flocking
- Printing
- Sealing
- Over moulding
- Gasketing
- And many more.....

Industries served:

- Automotive
- Manufacturing
- Injection moulding
- Extrusion
- Electrical
- Medical device manufacture
- Research establishments
- Universities
- R&D Departments / Test labs
- And many more.....

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Find the right solution with Dyne Technology

Dyne Technology has installed many corona treatment systems in a wide variety of applications throughout the U.K. and Ireland and in virtually every field of industry.

The illustrations below show a selection of typical application examples. If you require further information on any of these, or wish to discuss an application not shown here, please contact us. Our experienced engineers will be delighted to discuss your detailed requirements and suggest the most appropriate solution for your production needs.

Application Examples



Corona treatment of narrow web material



Corona treatment of HDPE bottles



Corona treatment of boards / sheets



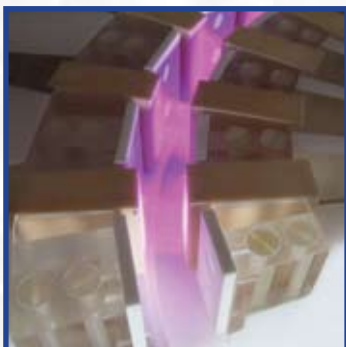
Laboratory corona treatment unit



Corona treatment of needle hubs before gluing



Corona treatment of extruded pipes before printing



Corona treater for syringe barrels



Corona treatment of ophthalmic lenses



Corona treatment of electrical cable treatment prior to printing

Corona Treatment



How Dyne Technology can help you:

Dyne Technology can help you in a number of ways. Not only do we supply Corona Treatment Equipment, we also offer support on Surface Testing and Measurement, Process & Application Consultancy, Training, Service, Maintenance, Repair, Spare Parts, Contract Surface Treatment and even Equipment Rental.

Our technical support team will be delighted to conduct no obligation, free of charge process evaluation on your parts in our fully equipped U.K. Applications Laboratory. Simply send us a sample of your components and we will treat them and ship them back to you for evaluation.

Our customers can take advantage of the following outstanding Technical Support:

Development phase support:

- Process Development
- Equipment Evaluation
- Consultancy
- Training
- Testing
- Pilot Production
- Equipment Rental

Introduction phase support:

- Installation
- Commissioning
- Training
- Start-up Support

Production phase support:

- Service
- Training
- Testing
- Spares & Repairs
- Maintenance agreements
- Process Improvement support



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