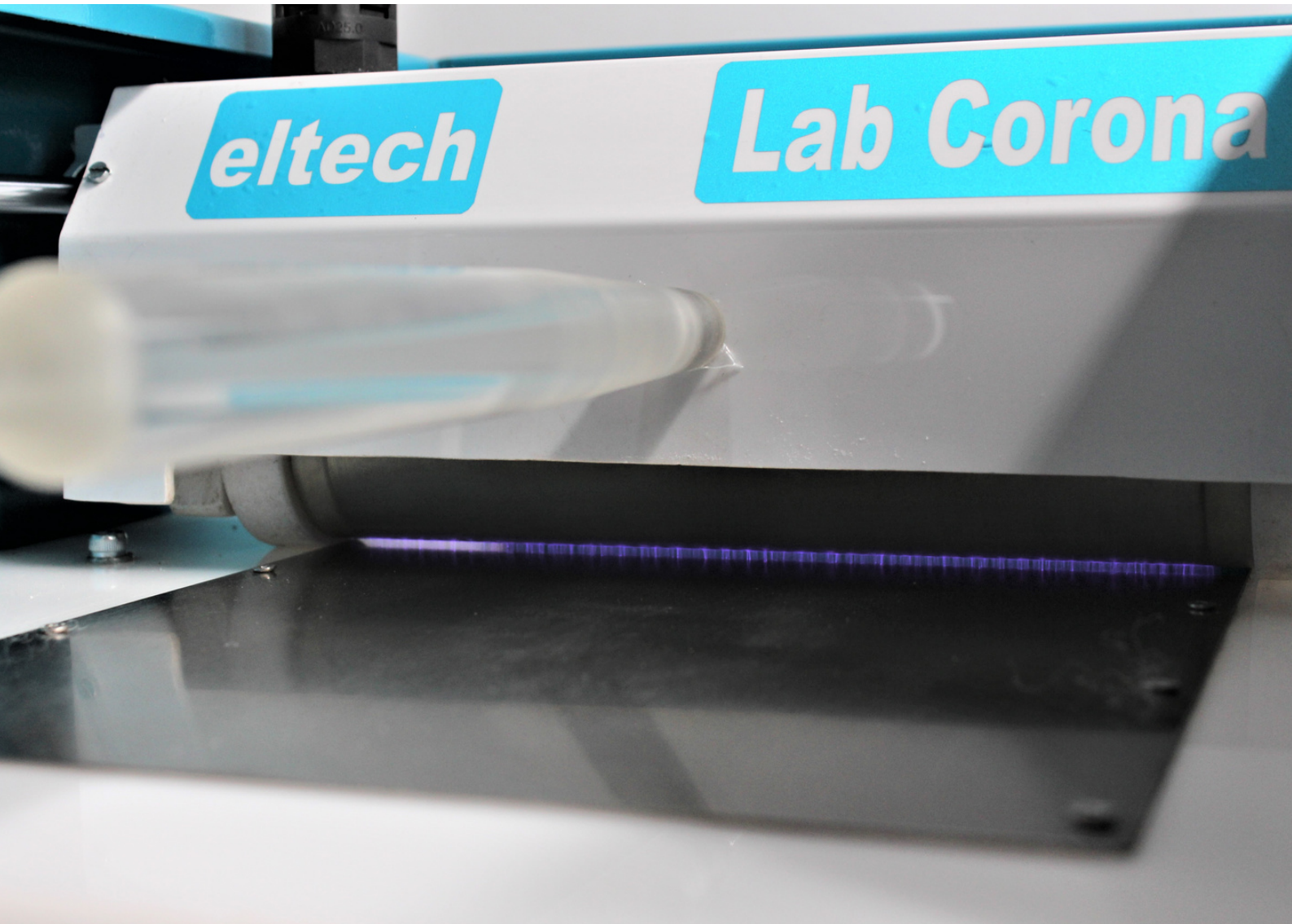


LABORATORY CORONA TREATER



EL-COROLAB



**ELTECH
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YEARS

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CORONA
PLASMA
STATIC

LABORATORY CORONA TREATER

Corona treating is a very effective way to increase the surface tension of virtually any material. When properly applied to your substrate, corona treating produces the higher surface dyne levels needed for good adhesion even on the more difficult-to-treat materials like polypropylene and polyethylene.

Other common corona treating applications include nylon, vinyl, PVC, PET, metalized surfaces, foils, paper, paperboard stock, and other materials. For the treatment of sample film prior to adhesion or printing. The film to be tested is placed on the earthed base plate and is then passed over with the manual roller electrode.

The generator power can be set and is displayed. The intensity can also be regulated by varying the movement speed. The unit is most suitable for quick and simple tests. The compact design of the unit allows it to be taken to a customer and to perform tests on site.

The device comprises a semi-conductor generator with an integrated transformer for high-voltage generation, the hand roll electrode (standard working width 200mm/A4 Size), the earthed ground plate power cable, and a hand or foot-operated switch for the activation of the Corona discharge. The output (intensity of the Corona discharge) can be adjusted at a potentiometer and read off a display.

The purpose of corona treatment is to optimize the adhesion properties of polymer-based materials. The low surface energy of polymer-based substrates often leads to poor adhesion of inks, glues, and coatings which by nature present significantly high surface energies. To obtain optimum adhesion, it is crucial that the surface energy of the substrate is equal to or higher than the surface energy of the material to be applied to the polymer.



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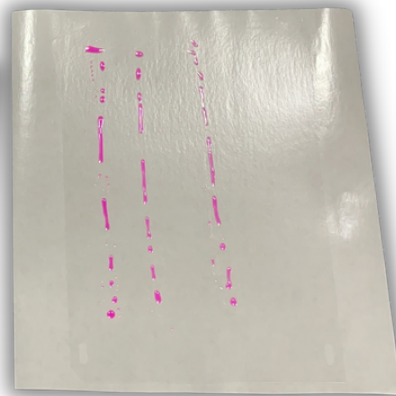
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Qualitative rating of treatment level or wettability

Sr. No.	Treatment level in dynes/ cm	Expected Quality rating in terms of print or coating adhesion
1.	Below 32	Very poor printing or coating adhesion
2.	34	Poor printing or coating adhesion
3.	36	Fairly good printing or coating adhesion
4.	38	Good printing or coating adhesion
5.	40	Very good printing or coating adhesion
6.	42	Excellent printing or coating adhesion

TREATED**UNTREATED**

Foot-operated switch for the activation of the Corona discharge Timer modes:

- EL 1 : 10 seconds
- EL 2 : 20 seconds
- EL 3 : 30 seconds
- EL 4 : 40 seconds
- EL 5 : 50 seconds
- EL 6 : 60 seconds

Features

- Ultra-High Frequency using the latest IGBT technology.
- Digital indication of Corona Current.
- Corona Treater rollers covered with high dielectric grade sleeve.
- Prevent premature failure of roller bearing by having a proper grounding system.
- Pneumatic Operated Corona Treatment Station for material feeding with Safety Switch.
- Even Suction throughout the treatment station helps to extract Ozone efficiently.
- Cooling provided by the Blower prevents wrapping of electrodes and helps to achieve a Consistent Treatment Level.
- Two external adjustment screws are provided at both the ends of electrodes for Air Gap Adjustments.
- Using Forced Convection inside the panel prevents overheating of Electronic Components.
- Providing a Proximity Sensor for detecting Zero Speed which automatically shuts down the power supply when the web achieves low line speed.
- Oil Cooled Transformer for better stability at high temperatures and has excellent electrical insulating properties.
- Easy view window for a clear view of Corona Discharge

Electronic Protection Features

- Electronic Overload Trip
- Thermal trip for heatsink
- MCB protection
- Under voltage / Over voltage
- Ozone extraction overload trip
- Single Phasing
- Door open
- Audio / visual alarm

Benefits

- Ultra high frequency using latest IGBT technology
- Compact Simple Contruction.
- Soft start
- Maximum Operator safety
- Forced cooled convertor for longer life

Technical Specifications

- **Input Supply** : 230 V AC , $\pm 5\%$, 1 Φ , 3 Wire
- **Treatment Size** : A4 (210 mm x 297 mm) (Customized)
- **Material** : Conductive / Non - Conductive
- **Treating Sides** : Single
- **Input Frequency** : 50 Hz
- **Output Frequency** : 20 - 50 KHz
- **Output Power** : 600 watts
- **Max Ambient Temperature** : 0 ~ 50 Degree Celsius
- **Connection** : Plug & Play
- **Treatment Electrode** : HV dielectric insulated Roller
- **Dynes Level** : 38-48 Dynes/cm
- **Length of HV Cable** : 2.5 meters
- **MOC** : Mild steel powder coated
- **Ambient Air** : Free of Flammable gas
- **Footswitch** : Normally open contact to activate corona discharge
- **Corona Output** : Ultra High Frequency Using Latest IGBT Technology, Constant at Same Speed, No Influence of Supply Voltage, Accurate Output Power.
- **Dimension** : 460 mm x 510 mm x 817 mm (L x B x H)
- **Weight** : 32 Kg
- **Certifications** : CE , RoHs , ISO



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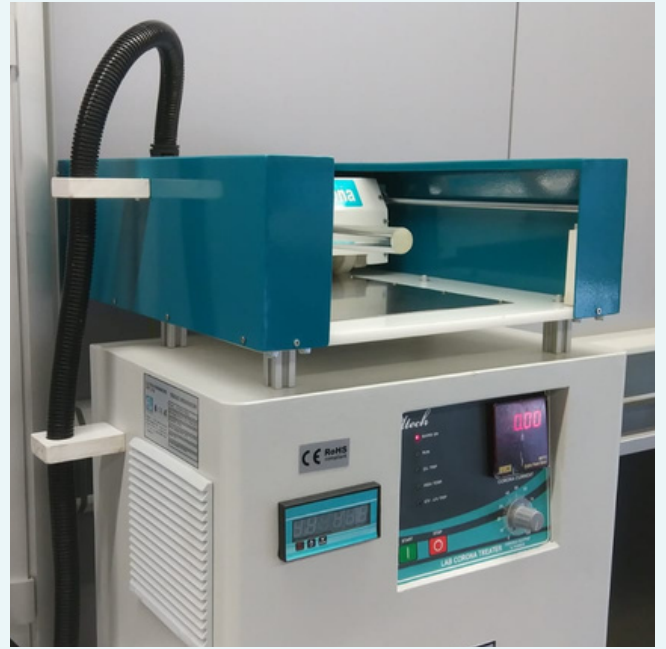
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