



**KRISTALNA
IDEJA**

Innovation is life



CASE STUDY

The sophisticated, smart device **iTherapy 1** effectively reduces the concentration of formaldehyde (HCHO) that would be inhaled into the lungs.

- ✓ Designed to improve air quality in hair salons.
- ✓ Integrirani senzori detektiraju različite zagađivače u frizerskom salonu.
- ✓ Croatian patent and product.

ABSTRACT

Proper air flow in hair salons is very important for the formation of optimal microclimatic conditions. There are many dangers lurking in hair salons. A large number of volatile organic compounds and vapors released from solvents, hair dyes, styling products..., negatively affects human health. Increased levels of moisture and heat release associated with constant washing and drying of hair can cause the appearance of mold, the spread of bacteria and infections. And of course, the constant flow of clients and the presence of staff must not be overlooked. Typical contamination such as dust, fungal spores, bacterial elements should also be considered... Also, hair salons are rich in formaldehyde that constantly evaporates from the paint, causing an unpleasant odor in the space. It is frightening to know that more than 90% of hairdresser employees feel the consequences of breathing bad air every day, such as loss of concentration, fatigue, migraines and respiratory diseases due to hypersensitivity to formaldehyde.

THE CHALLENGE

In public places, comfort largely depends on clean air. Hairdressers use a large number of colors, varnishes and other cosmetic products that adversely affect the atmosphere in the salon. Working with such agents involves the accumulation of harmful substances, so their reduction is extremely important. In order to ensure the well-being of clients and staff, an effective air purifier **iTherapy 1** has been installed in the hair salon. It is necessary to remove harmful formaldehyde and



iTherapy 1 ensures a pleasant stay for clients and staff inside the hairdressing salon!

Impact of air purifier iTherapy 1

- ✓ **the concentration of formaldehyde decreases in proportion to time, and in the last period of measurement the values stabilize**
- ✓ **maximum removal efficiency is 99,26%**

ensure the flow of fresh air. Even very high quality ventilation is polluted over time. Often, air ducts accumulate volatile organic compounds and dust. They reduce the diameter of the pipe, prevent air flow leading to the accumulation of harmful chemical compounds. Installing a reliable and high-quality **iTherapy 1** air purifier will leave a good impression on customers and ensure safe working conditions. The device simultaneously detects the presence of volatile organic compounds, especially formaldehyde, purifies and modifies the air inside the hair salon.

THE SOLUTION

In order to ensure a normal microclimate as well as a sufficient flow of fresh air into the hair salon space, a smart air purifier **iTherapy 1** was installed. Formaldehyde belongs to the group of the most reactive organic compounds, a colorless gas with an unpleasant and penetrating odor. Inhalation of formaldehyde may cause damage to the eyes, nose, throat and bronchi. Therefore, it is very important to find an effective way to reduce formaldehyde, and to recognize its harmful effects and to take care of the formaldehyde that surrounds us in everyday life. The **iTherapy 1** smart air purifier features new air purification technology and contributes to the rapid reduction of formaldehyde (HCHO). It uses iTHE100 - a patented universal filter for active and passive indoor air purification. iTHE100 eliminates organic compounds such as formaldehyde by the adsorption process. When a formaldehyde molecule reaches the filter, it adheres to its specific surface by an adsorption process. The adsorption process allows the filtration of organic chemicals (gases) in the air.

THE RESULTS

At the highest concentrations of formaldehyde contamination the **iTherapy 1** mostly purifies the air in the first 5 minutes. The efficiency of formaldehyde removal, achieved by the **iTherapy 1**, in the first 5 minutes of the air purification process is **99.26%**. The device has achieved a high degree of formaldehyde elimination (HCHO) and at the same time informed the end user about the contaminants inside the hair salon. The most important thing is to react in a timely and effective manner!

**iTherapy improving
quality of life**

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