



PRESS RELEASE

INDUSTRIAL INNOVATION & COVID-19

PYLOTE'S NATURAL ANTIMICROBIAL PROTECTION TECHNOLOGY PASSES SUCCESSFULLY EFFICIENCY TESTS FOR SURFACES PROTECTION AGAINST CORONAVIRUSES.

Nearly 99.99% destruction of coronavirus strain 229E

Toulouse (France), May 11, 2020 - PYLOTE, a specialist in mineral and ceramic industrial chemistry, announced today that it has obtained, from the FONDEREPHAR laboratory (COFRAC certification), the validation of the destruction efficiency of coronavirus by its natural antimicrobial surface protection technology.

The tests were carried out in the laboratory according to the requirements of the JIS Z 2801 standard adapted for human coronavirus strain 229E. Surfaces activated by PYLOTE technology were compared to control surfaces of the same nature but without the technology. The results showed a logarithmic reduction in the viral load on the surfaces of 3.9 log after 24 hours, corresponding to a disappearance of almost 99.99%¹ of the infectious virions.

¹ 1log = 90% of viruses destroyed - 2 log = 99% - 3 log = 99,9% - 4 log = 99,99%

In the current health context linked to the COVID-19 crisis, PYLOTE has refocused its offer in order to provide the market with products equipped with its technology to help control the risk of transmission of micro-organisms, including viruses, through surfaces. In particular, several application products, such as adhesive films, paints or filtering membranes for protective masks have been qualified. These applications are ready to be launched on the market with PYLOTE's current industrial partners and distributors as well as with all those who would like to use and deploy products activated by PYLOTE's natural antimicrobial protection technology.

Loïc Marchin, CEO of PYLOTE commented on this announcement: *"The efficiency and robustness of our technology, once again confirmed, reinforce our conviction that we, as manufacturers & industrials, can help control the risk of transmission of micro-organisms and viruses in contact with surfaces. In the current health situation related to COVID-19, our technology is particularly well suited to living spaces, such as transportation, work environments, school zones, hospitals or retirement homes. We plan to rapidly bring our technology to market, notably through a specific COVID-19 offer on adhesive films, paints and masks. Our approach to the market illustrates the two major thrusts of our development this year: on the one hand making finished products safer, cleaner and greener, and on the other hand better protecting environments against the risks of contamination, with in particular the ability to eliminate contamination in industrial sites and better respond to the problems of transmission by surface contact".*

ABOUT THE PYLOTE TECHNOLOGY

- ❁ PYLOTE's breakthrough technological innovation consists in integrating mineral ceramic microspheres by mixing with materials such as adhesive films or paints. After application, coated surfaces such as transit bars or office tables are activated to destroy microorganisms. These mineral beads act as a catalyst causing a microbial decontamination of the surfaces and a continuous protection against microbial contamination with a very high level of safety, efficiency and hygiene during the entire service life. During the 10 years of development, the effectiveness of the PYLOTE technology has been tested on a very large number of microorganisms specific to the applications of the technology in the food industry, health, industry, or cosmetics.

EFFECTIVENESS OF THE ANTIMICROBIAL ACTIVITY OF THE PYLOTE TECHNOLOGY

- ❁ The validation of the efficacy of PYLOTE's natural antimicrobial technology on a human coronavirus strain 229E completes the long list of microorganisms destroyed by PYLOTE's natural antimicrobial protective solution, allowing for the removal of up to 99.9999% of contaminants on activated surfaces that provide immediate and continuous antimicrobial activity. It should be noted that the measurements carried out on a model micro-organism (*E. coli*) show a destruction of nearly 90% within the first hour, i.e. a logarithmic reduction of the load of approximately 1 lg.
- ❁ **Effectiveness against viruses (>99%) according to the adapted standard JIS Z2801 (24h contact):**
 - **Human coronavirus 229E:** 3.9 lg
 - **Influenza virus A / Influenza (H1N1):** 2.6 lg
 - **Human Rotavirus (Gastroenteritis):** 2.2 lg
 - **Herpes virus type 1 (HSV-1):** 2.2 lg
 - **Adenovirus Type 3 (Conjunctivitis):** 2.3 lg
- ❁ **Some examples of bactericidal efficacy measurements, especially on resistant bacteria (up to 99.999%):**
 - **Escherichia coli CIP 53.126 and clinical isolate BLSE:** > 3.8 lg
 - **Staphylococcus aureus (MRSA) ATCC 33591:** > to 3 lg
 - **Salmonella enterica CIP 60.62T:** > to 5.8 lg
 - **Pseudomonas aeruginosa CIP 82.118:** > 4.1 lg

ABOUT PYLOTE - Founded in 2009 and based in Toulouse (France), PYLOTE is a key player in the cleantech industrial mineral and ceramic chemistry, globally recognized by its in-house breakthrough and sustainable innovation. Pylote is developing, producing and selling an unique natural protection solution patented from process to applications that solves issues faced by consumers with regards to safety, hygiene and sustainability. By focusing on market differentiation, PYLOTE supports its clients in the pharmaceutical, cosmetic, food and industrial markets for regulatory, marketing and industrial steps to generate a powerful value proposition in a quick time to market, without neither investment nor change in the current manufacturing process. Since 2016, the PYLOTE innovation, which is in compliance with the FDA, cosmetic, pharmaceutical, food, international regulations and Food contact approved, has been repeatedly and internationally awarded-winning: Pharmapack Award, CPhI Pharma Award, the Oscar of Packaging for Food Applications, Trophy of CSR Solutions, MakeUp in New York Tree Innovation Award. More information about Pylote in our new website: www.pylote.com



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