

IMPREGNATION AGENTS | LIOSIL® HC 621 E

LIOSIL® HC 621 E: A WATER-BASED, FLUORINE-FREE IMPREGNATION AGENT BASED ON SILICONES

Water repellency for modern textiles requires specific fabric care products.

Water repellency is a characteristic of modern textiles such as outdoor clothing. For these high-performance textiles, consumers need a high-performance fabric care product in their laundry to achieve specific and perceptible benefits such as water repellency through wash impregnation.

Unique Features of LIOSIL® HC 621 E

- Water-based formulation
- Does not contain components based on perfluoralkylated resins
- Emulsifier/surfactant free formulations
- No drawback of a lower impregnation effect than solvent-based products



Fabric treated with LIOSIL® HC 621 E

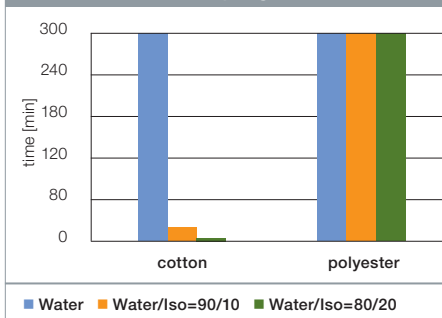
LIOSIL® HC 621 E is a finely dispersed water-based silicone emulsion.

The particle size is in the nanometer range.

The emulsion can be easily diluted with water or readily incorporated into cold stirred formulations.

LIOSIL® HC 621 E is manufactured to have a low content of low molecular weight cyclic siloxanes.

Table 1: Measurement of the penetration time of a 0.04 ml water droplet on with-LIOSIL® HC 621 E impregnated fabrics



LIOSIL® HC 621 E

Application

LIOSIL® HC 621 E is used primarily as polish in the home care sector. LIOSIL® HC 621 E is ideal for impregnating natural or synthetic textiles in a washing machine.



It is recommended to apply the product containing LIOSIL® HC 621 E during the rinse cycle. The impregnation effect is reached without loss of fabric breathability.



LIOSIL® HC 621 E significantly improves many surface substrates.

LIOSIL® HC 621 E offers:

- Protection against humidity and moisture
- Protection against soil and stains
- Surface enhancement
- Surface renewal

LIOSIL® HC 621 E also offers:

- Increased durability
- Decreased dirt pick-up
- Breathability



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Application examples:

Table 2: Measurement of the contact angle of a water droplet on marble (impregnated with LIOSIL® HC 621 E by cloth)

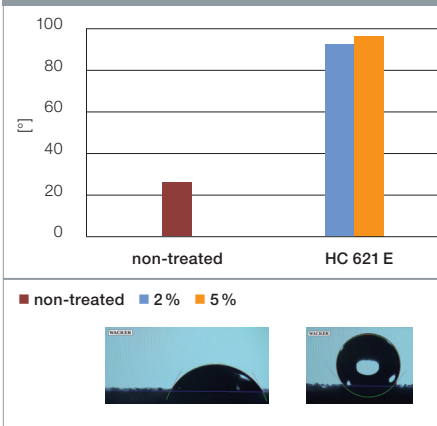


Table 3: Determination of soil repellency on marble (impregnated with LIOSIL® HC 621 E by cloth)

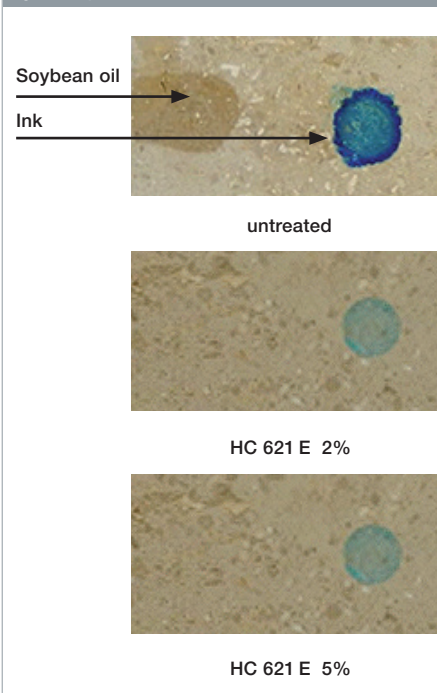
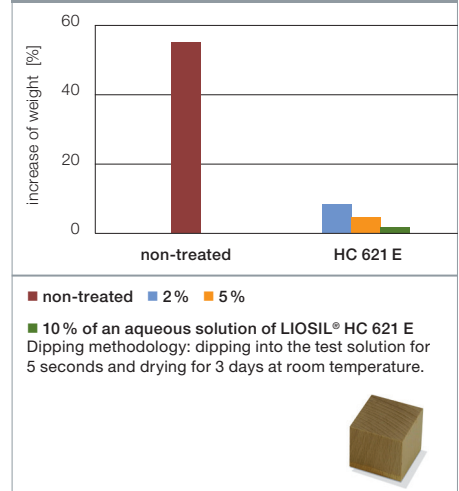


Table 4: Measurement of the water absorption of treated wood cube after 1 hour in 0.5 cm deep water (impregnated with LIOSIL® HC 621 E by dipping methodology)



LIOSIL® HC 621 E is suitable for the following porous substrates:

- Shoes and leather
- Flooring like wood, laminate, cork, stone, tiles, etc.
- Textiles of natural and synthetic fibers, and functional materials

Application Recommendations and Treatment Methods:

- Wash impregnation agent
- Trigger spray1):
droplet size when sprayed:
 - average aerodynamic diameter must be $\geq 30 \mu\text{m}$
 - particles with diameter $< 10 \mu\text{m}$ must represent $\leq 1\%$ of the total amount of sprayed droplets
- Coating (e.g. with a sponge)
- Dipping

The data presented in this information sheet are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this information sheet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.