



PYROSIL®

GVE 2 - Manual flame treatment device

The GVE 2 is for PYROSIL® coating of medium and large areas. A firmly adhering silicate layer with high density but just a few nanometres thickness on metal, glass and polymers is produced by burning a gas mixture (propane and butane) and silicon-organic compounds. This coating forms the basis for strongly adhesive prints, varnishes and bonding. It can be used as a hand-held unit for large area use, or the burner head can be installed in automated systems, since the use of 2 PYROSIL® cartridges permits continuous work.

GVE 2 – components: (single burner)

1 x GVE device
1 x Medium pressure hose (device <--> burner)
1 x Burner (hand device)
2 x PYROSIL® refill (PYROSIL® refill MGK cartridge or PYROSIL® refill P cartridge)

GVE 2 - D – components: (double burner)

corr. GVE 2
1 x Double burner (hand device)



Application range:

Glass, ceramics, polymers and metal
Producing of adhesion promotion coating or other functional layer

Surface area:

small to medium areas

Application example:

Improvement of bonding of UV hardening adhesive and colours, hydrophilic surfaces

Shelf time:

12 month PYROSIL® refill cartridge and 6 month SURALink® 021 primer
(from date of manufacture in unopen package, frost-proof and dry storage at 5 to 25°C)

Specification:

Dimension:	460 mm x 340 mm x 220 mm
Weight:	12 kg
Capacity:	26 g
Burning time:	45 min (flaming without brake with one cartridge)

Substrate:

The substrates have to be clean, dry, dust-free and free of grease.

Handling:

For the pre-treatment always the non-luminous part of the flame (oxidizing flame part) should be used. A flame coating to any materials with the luminous part of the flame (reductive flame part) has strictly to be avoided. The flame should be moved gently up and down the substrate. Do avoid local overheating.
The optimum treatment time should be estimated by own investigations. It depends of the kind of the material to be treated. Usually treatment time for plastics is shorter than the treatment time of metal, glass or ceramics. Especially for the last mentioned materials it is favourable to warm them up before the treatment. Material temperature of 40 to 50°C are sufficient to avoid the formation of condensation water.

Approximately 15-30 seconds are necessary for the treatment of an area of 0.5 sqm with the burner. For plastics, 1-3 flame cycles are sufficient for metal, glass or ceramics (depend on the velocity of the hand movement) 4-8 cycles are sufficient to obtain the PYROSIL® effect.

The PYROSIL surface coating shows reactivity for some time at room temperature (dry air). Nevertheless a speedy processing within 30 min (12h max.) is recommended. To get even better results in individual cases the use of SURALink® adhesion promoters is indicated.

Do not hesitate to contact us, we would like to consult you.

Transport data:

Land: ADR: UN 1950, 5F, Druckgasverpackungen 2.1
ADR: 3 II, UN 1219, F1, Isopropanol Lösung
Sea: IMDG: UN 1950, Aerosol 2.1, F-D, S-U
IMDG: 3 II, UN 1219, Isopropanol solution
Air: ICAO/IATA-DGR: UN 1950, Aerosol, flammable 2.1
ICAO/IATA-DGR: 3 II, UN 1219, Isopropanol solution

Labelling:



Danger

Hazard statements: H222, H229, H225, H319, H336

Precautionary statements: P210, P211, P251, P410+P412, P260, P271, P233, P260, P271

Health safety:

The correct use of SURA PYROSIL® flame equipment guarantees that no harmful gases or fumes are released. Pay attention on the manufacturer to prevent fire. The use of fume hood is recommended for longer work. Caution is needed during the flame pyrolytic surface treatment of PTFT and other fluorine containing polymers. Contact the manufacturer of SURA Instruments GmbH for further information.

Safety instructions:

PYROSIL® is a propane-butane gas mixture and produces as well as pure propane-butane explosive mixtures with air. Ignition sources of each kind have to be removed, because of a possibility of an accidental ignition. Smoking is strictly prohibited during handling and working with PYROSIL®. No toxic or harmful reaction products are formed. For longer work please ensure an aeration or use an exhausting device.

For the transport of PYROSIL® cartridges please read the safety data sheet.

!!! Note:

Any information and advice – whether oral, written or by acts – is provided to the best of our knowledge and in good faith, but without warranty. This also applies to any proprietary rights of third parties. You still have a legal duty to verify any information or recommendations provided by us – especially, without limitation, that contained in our safety data and technical information sheets – and to test products as to their suitability for the your intended processes and uses. Your application, use and processing of our products and any products manufactured by you on the basis of our advice is beyond our control, and falls entirely within your own responsibility. Our products are sold in accordance with the current version of our General Terms and Conditions.