

WORK SPECIFICATION

ItuGrafi® -graphite panel has a 10mm copper flow pipeline embedded in a graphite layer. Panel's casing is formed from sheet steel and is available with a smooth or a perforated surface. The air flow through has been structurally prevented in accordance with the EN 14037-1 standard. Panel can be painted using RAL colours (the standard colour is RAL 9016). Panels can also be fitted with insulation on the top surface.

ItuGrafi® -graphite panel's cooling power ($dT_{10\text{ K}}$ = average temperature of supply/return water - the desired air temperature) is 135 W per square meter across the entire surface of the panel, which is in accordance with the EN 14240 standard. Cooling power is achieved with a turbulent flow in the panel's flow pipe, which leads dT of 2-3 degrees on the water side.

ItuGrafi® -graphite panel's heating power is 253 W ($dT_{30\text{ K}}$) per square meter across the entire surface of the panel, which is in accordance with the EN14037 standard. Heating power is achieved with a turbulent flow in the panel's flow pipe, which leads dT of 5-10 degrees on the water side. Maximum surface temperature on the perforated panel is 50 °C. Equivalent thermal output of the uninsulated panel is 443 W ($dT_{30\text{ K}}$) per square meter across the entire surface of the panel.

The standard widths of the ItuGrafi® panels are 595 mm, 895 mm and 1190 mm. The standard lengths are 590 mm, 1190 mm, 1790 mm, 2390 mm and 2990 mm. The panels are supported from the ceiling by adjustable cable wire supports or surface brackets. Panels up to 2390 mm are supported by four brackets and 2990 mm panels are supported by six brackets. Panels are CE marked and declaration of performance is available upon request.

Cold main pipelines and connection lines of radiators are insulated with oxygen diffusion resistant closed-cell rubber insulation to prevent condensation from occurring in the pipelines. Hot main pipelines and connection lines are insulated for the visible parts, or at least where people should not touch them. The lines are also insulated when no heat load is wanted in the pipe location or when it is necessary to secure the temperature ratings of the supply water and the power values obtained from them. For more detailed information about pipes and their insulation, see local building code and regulations.

ItuGrafi® panels can be connected in series 1–4 pcs or in parallel 1–10 pcs depending on the pressure losses of the selected product types and their combinations. The flows of individual or parallel-mounted panels can be standardised with adjustable inserts and flow control valves. The room temperature can be controlled by a thermostat located in the premises that changes the temperature or flow rate of the supply water using an actuator. Connections between panels using oxygen diffusion resistant flexible hoses with DN10 push-fit connectors. Flow line connections using flexible hoses with ½" external thread.

