



#### Radiant Cooling and Heating Panel

- o 2nd Generation Developments
- o Graphite boosted heat transfer
- Made in Finland with highest quality standards



### Construction

- o Steel cassette
- o Graphite layers
- Copper meander
- Hanging bars
- $\circ \quad \text{Emission free} \quad$





### **Benefits**

- Reduces CO2 emissions saves energy
- Heating and Cooling with the same system
- o Most efficient panel on the market
- Maintenance free long life time
- Easy to integrate with different ceiling constructions and house techs.





#### **Standard Panel Models**

- Width 600 1200 mm,
- o Lengths 600 3600 mm
- One and two-layer panel innovations
- Standard white RAL9016, all RALcolors available
- o Standard surface smooth
- Micro perforated surface for better acoustics available
- Taylor made dimensions





### **Integrated Ceiling Models**

- Seamless joints with suspended ceilings
- For T-24/T-15 panel-systems
- Combatible with St.Gobain's Ecophon Focus/Master and with Rockfon product families
- Adjustable and taylor made system





### **Special Models**

- Surface fixing
- Serial connections
- 2-layer special models
- 90 degree connections



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- Surface fixing
- Serial connections

**Quality Heating** 

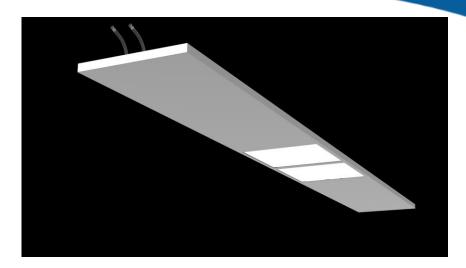
- 2-layer special models
- o 90 degree connections





### **ItuGraf Integrated**

- Wide base for HVAC-integrations
- LED-lights and controls
- Sprinkler- and fire-alarm systems
- Electric cabling support and outputs
- Data communications / WLAN base
- Activity sensors
- Localization / occupation support







### Installation

- Wires with fine height adjustement
- Surface fixing
- Flexible hoses for hydraulic connections
- Constant flow balancing valves
- Fast and easy installations





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### **Applications areas**

- Commercial buildings
- $\circ$  Offices
- Apartments and one family houses
- $\circ$  Hotels
- Hospitals
- $\circ$  Schools
- Daily care homes
- Kindergardens
- Modular buildings









### References

Project:	Ruokolahti School
City:	Ruokolahti, Finland
Time:	2018
Туре:	New
Size:	6000 m2
<b>Description:</b>	Heating





### References

Project:	Apartments
City:	Nurmijärvi, Porvoo, etc
Year:	2015-2018
Туре:	Heating and cooling
Size:	1000 apartments
Description:	Living rooms, wet rooms and toilets, saunas with ItuGraf





#### References

Project:	Apartments
City:	Porvoo
Year:	2018 / 2019
Туре:	New building
Size:	48 / 96 apartments
Description:	Heating and comfort cooling with ItuGraf





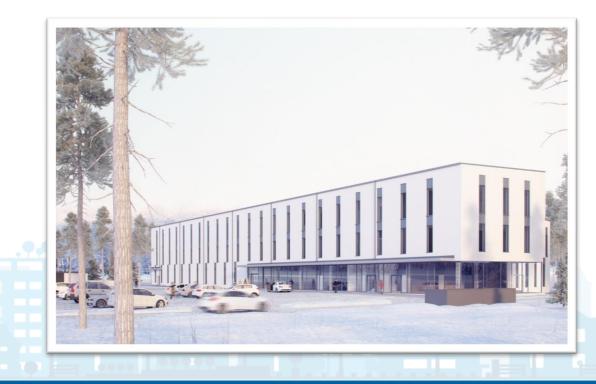
### References

Project:	Apartments
City:	Nurmijärvi, Porvoo
Year:	2015-2018
Туре:	Heating
Size:	400 apartments
Description:	Living rooms, wet rooms and toilets, saunas with
	ItuGraf





#### Pohjola Hospitals









### References

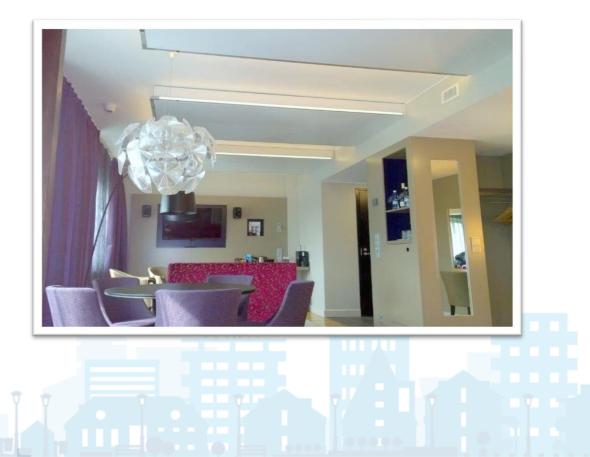
Project:	Pohjola Hospitals
City:	Helsinki, Tampere, Kuopio, Oulu, Turku
Year:	2012, 2015, 2017
Size:	30 000 m2 of private hospitals
Type:	ItuGraf heating and cooling
Description:	Offices, control rooms, patient rooms, doc roo dentist rooms, restaura





### References

Project:	Sokos <u>Hotels</u>
City:	Lahti, Kuopio, Jyväskylä, Hämeenlinna etc.
Year:	2015-2017
Туре:	Renovations
Size:	over 50 000 m2
Description:	Heating and cooling or just cooling added to quest rooms and lobbies





#### References

Project:	<u>OP Bank H.Q.</u>
City:	Helsinki
Year:	2015
Туре:	New building
Size:	64 000 m2
Description:	Heating and cooling with ItuGraf panels





#### References

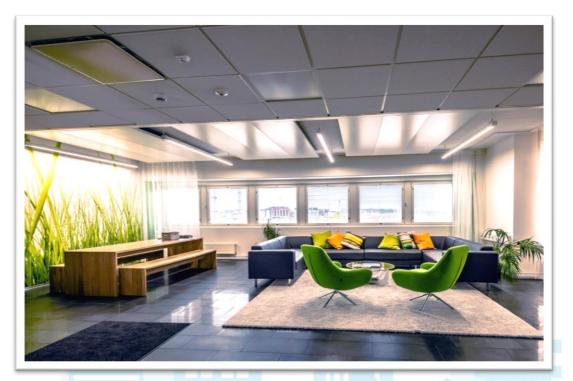
Project:	<u>OP Bank H.Q.</u>
City:	Helsinki
Year:	2015
Туре:	New building
Size:	64 000 m2
Description:	Heating and cooling with ItuGraf panels





#### References

Project:	Office Building Kalasataman KUMMELI
City:	Helsinki
Year:	2015
Туре:	Renovation
Size:	8 000 m2
Description:	Cooling with Itugraf panels, heating by radiators





#### References

Project:	Office Building Kalasataman KASVU
City:	Helsinki
Year:	2018
Туре:	New office building
Size:	8 000 m2
Description:	Heating and Cooling ItuGraf panels





### References

Project:	Office Building Kalasataman LOIKKA
City:	Helsinki
Year:	2019
Туре:	New office building
Size:	9 000 m2
Description:	Heating and Cooling ItuGraf panels





#### References

Project:	Office H.Q. Building of Batim Logistics
City:	Stary Sącz, Poland
Year:	2016
Туре:	New building
Size:	2 000 m2
Description:	Heating and Cooling with Itugraf panels





Best available indoor climate with ItuGraf Radiant Cooling and Heating Panels <u>www.itula.fi</u> Itula Oy Ltd., Finland

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