Warranty Certificate

Installation Adress:										Installerad produkt:	
Name property owner:										Part no/Ean no:	Batch no:
Adres:										Product Type:	
Zip code/Town:										Watt:	Watt/m²:
Country:										Measured resistance ohm:	
Tph nr:										Measured insulation Mohm:	
Installation area:											
Kitchen		Bedroom		Bathroom		Living room		Washing room		Floor construction:	
Entrance		Back Entr.		Toilet		Conservatory		Others		Cable from floor surface:	
Purchasing place:										Installatör:	
Company name:										Company name:	
Town/Country:										Company register no:	
Tph no::										Installers name:	
Purchasing date/Invoice no:										Adres:	
Installed date:										Town/Country:	
Signature installer:										Tph no:	
Drawing of installation area. Installation pattern. Where Thermostat, Floor sensor and splices are located with measurements.											

INST01009 090402

Installation Instruction KIMA Turquoise

- **KIMA Turquoise** heating cable for thin floor construction on top of an existing concrete floor construction or ordinary concrete construction in wet and dry areas.
- **KIMA Turquoise** should only be installed on self supported floor constructions according to building regulation, with minimum 30 mm thick concrete or self leveling compound direct under the heating cable.
- **KIMA Turquoise** can not be installed in areas where there are combustible or temperature sensitive material when the wattage per square metres are higher than 100 W/sqm. Make sure that combustible material will not be higher than 80 degree C.
- **KIMA Turquoise** is a flameretardent steel armoured, twin conductor heating cable with no electromagnetic fields and minimum electricfields.
- Mechanical strength, armoured class C according to EN60800.
- Type 33-2
- Insulation class I
- IP67
- Operating temperature max +70°C
- Min installation temperature -15°C
- Voltage 230 Volt.
- Wattage 16 W/m.
- Outer diameter 5.50 mm
- 2 m coldtail with metallic sheath.
- Manufactured according to EN60800, SS4242411.
- Complies with RoHs directive 2002/95/EC.

Part no.	EAN no.	Product Type	Length (m)	Wattage (W)	Tolerance total (Ohm)
E 89 876 25	7331002902195	KIMA Turquoise	7	110	457 - 529
E 89 876 26	7331002902201	KIMA Turquoise	10	160	314 - 364
E 89 876 27	7331002902218	KIMA Turquoise	14	220	228 - 265
E 89 876 28	7331002902225	KIMA Turquoise	19	300	168 - 194
E 89 876 29	7331002902232	KIMA Turquoise	24	400	126 - 145
E 89 876 30	7331002902249	KIMA Turquoise	31	500	101 - 116
E 89 876 31	7331002902256	KIMA Turquoise	41	650	77 - 90
E 89 876 37	7331002902263	KIMA Turquoise	50	800	63 - 73
E 89 876 32	7331002902270	KIMA Turquoise	55	900	56 - 65
E 89 876 38	7331002902645	KIMA Turquoise	64	1000	50 - 58
E 89 876 33	7331002902287	KIMA Turquoise	72	1150	44 - 51
E 89 876 39	7331002902294	KIMA Turquoise	82	1300	39 - 45
E 89 876 34	7331002902300	KIMA Turquoise	92	1500	34 - 39
E 89 876 35	7331002902317	KIMA Turquoise	112	1800	28 - 32
E 89 876 40	7331002902324	KIMA Turquoise	126	2000	25 - 29
E 89 876 36	7331002902331	KIMA Turquoise	144	2300	22 - 25

Instructions

- Installation and connection to the mains should be done by an authorised installer according to National and International regulations, directives and installation instruction.
- Heat loss calculation should be made for the building construction to determine the right energy demand. If the heat demand are greater than 80 W/sqm make sure that their will be no risk for overheating when the floor is covered. The overheating risk will be greater when the floor construction are thin and if it is well insulated. It is important that surrounding material will not be exposed to high temperatures. Max temperatures for combustible material is 80 degree C.
- **KIMA Turquoise** should be installed as a fixed installation and min installation temperature is -15°C.
- **KIMA Turquoise** should be installed with the following equipment: RCD max 30 mA and any of KIMAs electronic floor thermostat with external floor sensor.
- **KIMA Turquoise** should be used for under floor heating and installed in concrete or selflevelling compound.
- **KIMA Turquoise** should never be installed in a floor timber construction.
- **KIMA Turquoise** should be installed on a flat and smooth floor construction with a min thickness of 30 mm of concrete or selfleveling compound under the heating cable. (Smaller thicknesses will have larger risk for overheating). Special attention during and after installation should be taken to eliminate damages of the cable: don't use sharp tools and compounds and don't pour out the cement mix rapidly.
- Fix **KIMA Turquoise** properly to a metal net or the armouring without damaging it. If it should be installed on a flat clean concrete surface it could be fixed with a standard hot melt glue.
- **KIMA Turquoise** should never cross an expansion joint in the floor construction.
- Min bending radius 35 mm for KIMA Turquoise
- **KIMA Turquoise** can not be crossed or installed next to another heat source. The heating cable should be evenly spaced over the heated floor.
- **KIMA Turquoise** can not be cut.
- Max continuous operating temperature for **KIMA Turquoise** is 70°C.
- **KIMA Turquoise** should be covered with min 10 mm cement based material or tiles. Recommended is to place the heating cable in the middle of the concrete.
- **KIMA Turquoise** should only be installed in areas that should be heated. Make sure that the whole heating cable can dissipate/conduct the heat and eliminate overheating. It is important that the cable will be fully covered with concrete or self leveling compound without any air pockets. Air have poor heat conductivity.
- Do not to install **KIMA Turquoise** in floor areas witch will be covered with fixed installed furniture's, wardrobes, kitchen cupboards, toilets, bathtubs, etc. their will be a risk for overheating and damage of the cable.
- **KIMA Turquoise** should not be installed in direct contact or between thermal insulation. It will be overheated.
- **KIMA Turquoise** electrical insulation properties and the electrical resistance should be tested before, after it's been installed, covered and before it's connected to the mains.
- Min insulation properties should be according to electrical regulations. Resistance should be within the tolerances see **KIMA Turquoise** table (+10% / -5% according to standard).

Installation in concrete or self levelling compound.

Make sure that the floor construction is well thermal insulated as well as the walls and sealing. If the installation is made in a wet area, like bathroom, etc, follow national and local regulation. Waterproof membrane might be required? The self supported floor construction should be strong so it will never crack and have a min 30 mm tick layer of concrete or selflevelling compound under **KIMA Turquoise**.

1. Calculate the right distance between the heating cable runs with the following formula:
   Heated area (sqm) / Length KIMA Turqouise (m) = distance between cable runs (m) or
   Surface Wattage heated area (W/sqm) / 16 (W/m) = distance between cable runs (cm)
2. Clean the surface carefully and paint it with a primer see the compound suppliers instructions.
3. Plan the installation pattern before starting the installation.
4. Before installing **KIMA Turquoise** measure the electrical insulation (MΩ) and electrical resistance (Ω) to make sure that the cable is ok.
5. Start to install **KIMA Turquoise** from the point where it should be connected to the thermostat.
6. Roll out **KIMA Turquoise** (important to roll out to avoid tangling and damaging the cable) and strap it (max 200 mm between the straps) to the metal net or the amouring or glue it to the flat concrete surface with hot melt glue. Make sure that the heating cable are evenly spread out over the heated surface. Don't damage the cable.
7. Don't install **KIMA Turquoise** in areas where risk for drilling or where nails and screws can be installed or areas wich will be covered with fixed installed furniture's, wardrobes, kitchen cupboards, toilets, bathtubs, etc. Leave 50 mm free from the wall so their will be no risk of damaging **KIMA Turquoise** when installing floor list and other materials.
8. **Kima Turquoise** splices should be installed in the heated area.
9. The thermostats floor sensor should be installed in an open floor area between 2 heating cables min 30 cm from the wall. It is recommended to install the floor sensor in an end sealed electric conduit pipe.
10. The electrical insulation (MΩ) and the electrical resistance (Ω) of **KIMA Turquoise** should be measured and compared.
11. Make a drawing or take a picture of **KIMA Turquoise** installation pattern, measure and mark where the thermostat, floor sensor and the splices of the heating cable are installed. Don't forget to register **KIMA Turquoise** batch no. in the Warranty Certificate.
12. Don't leave **KIMA Turquoise** uncovered. Try to cover directly after it has been installed. That wil lower the risk for it being damaged. Cover **KIMA Turquoise** with concrete or self levelling compound according to the suppliers instructions. It's important that their will be no air pockets in the concrete, self levelling compound or tile glue to get a good heat distribution and no risk for overheating.
13. Lay out and fix the floor surface material according to the suppliers instructions.
14. Before connecting **KIMA Turquoise** to the mains measure the electrical insulation and electrical resistance to make sure that the installation is ok. Compleat and fill in the results in the Warranty Certificate.
15. Don't turn the heating on to early. Check with the suppliers of the concrete/self levelling compound and the flooring material.

KIMA Warranty

The Warranty will not be valid if the installation is not done according to the following:

- If the buyer of the **KIMA Turquoise** fails to contact the place the cable has been purchased from.
- KIMA should be able to do the fault tracing and an analyze, decide and explain the reason for the failure. Fault tracing and repairing can not be done by anybody else if not KIMA have confirmed it with a written paper.
- Installation should be done by an authorised installer according to regulations, directives and KIMAs installation manual.
- Warranty Certificate should be completed by the installer and saved next to the main switchboard.