(54852) 205, Gigye-Venture BD, Yusang-ro 67, Jeon-ju, Jeonbuk, Korea
Tel. +82 63 213 2111 Fax. +82 63 213 4111 Website : www.tnkcarbon.com
Cel. +82 10 4440 8101 E-mail : junsang@tnkcarbon.com

Technology Network Korea

# De-Icing Shape Heating system

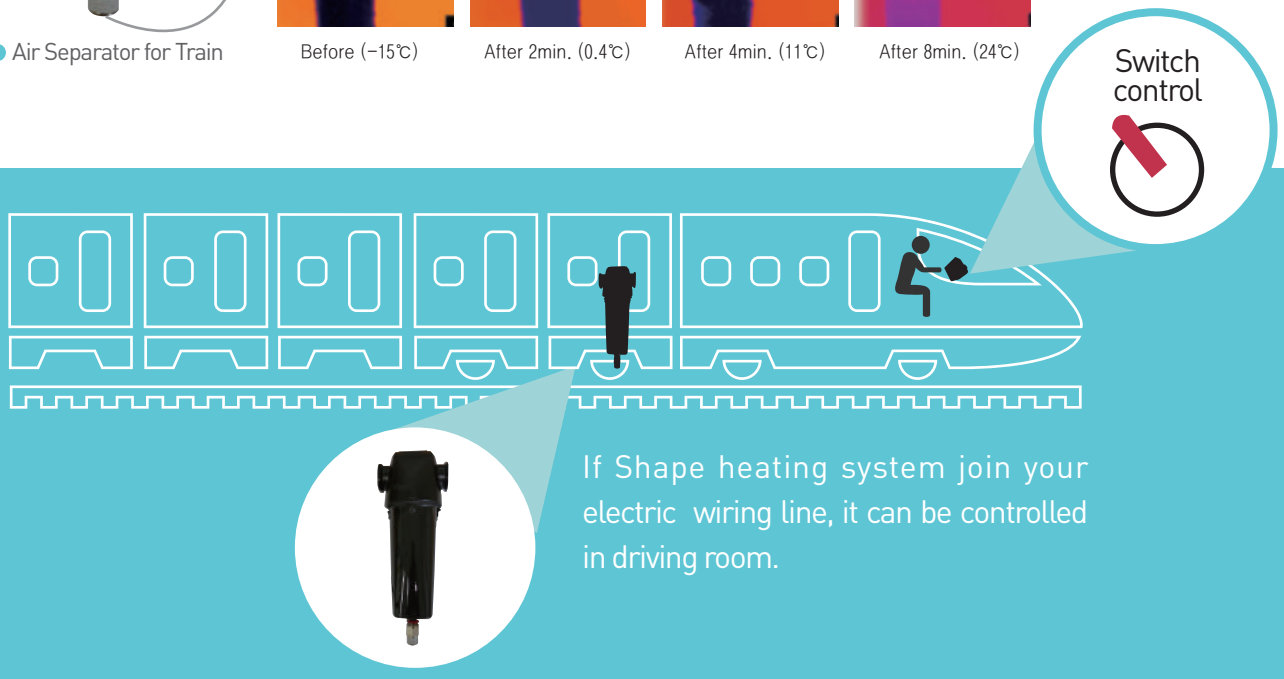
When you want to make a heating on the complicated Surface, TnK can make a solution by Shape Heating System. This shape heating system can be used for any type of shape. Normal Temperature range is 20~70℃ on the Surface, and DC voltage is being used. All specification can be changed as products size and shape.

| Application | Any type of Shape |
|---|---|
| Temp. Range (Max. Temp.) | 20~70℃ (80℃) |
| Voltage | DC 5 ~ 48V (As size) |
| Ampere | 0.5 ~ 8A (As size) |
| Surface Coating | Poly Urethane |
| Time to 0℃ (Surface) | Within 2 min. |
| | (from −15℃) |

Air Separator for Train

Valve for Train

Before (−15℃) | After 2min. (0.4℃) | After 4min. (11℃) | After 8min. (24℃)



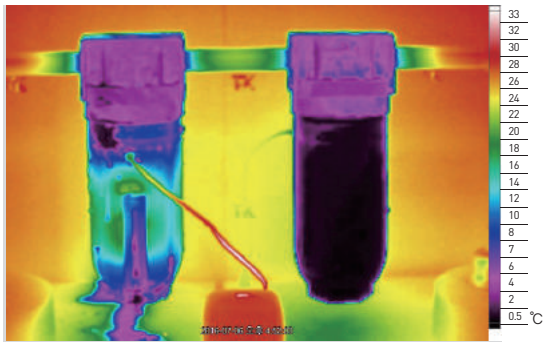

If Shape heating system join your electric wiring line, it can be controlled in driving room.

Copyright @ TnK Co.,LTD www. Tnkcarbon.com

(54852) 205, Gigye-Venture BD, Yusang-ro 67, Jeon-ju, Jeonbuk, Korea
Tel. +82 63 213 2111 Fax. +82 63 213 4111 Website : www.tnkcarbon.com
Cel. +82 10 4440 8101 E-mail : junsang@tnkcarbon.com

Technology Network Korea

# De-Icing Shape Heating system




## What is advantage?

- No need changing layout
- Controlling in Driving Room
- Reducing Man power
- Resistant to Flying Stones
- Easy to use

## Business Model

Supplying "Shape Heating System" manufacturing on your products
R&D and Prototype for your products
Supplying Technical consulting

Patent : KOR 10-2014-0081614

Technology Network Korea

Copyright @ TnK Co.,LTD www. Tnkcarbon.com

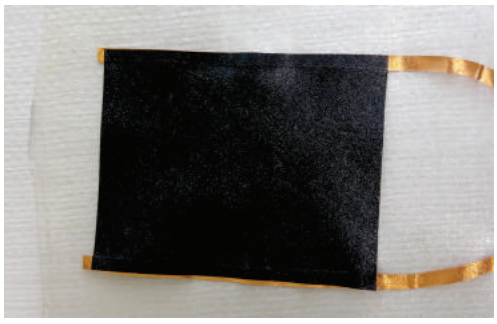
(54852) 205, Gigye-Venture BD, Yusang-ro 67, Jeon-ju, Jeonbuk, Korea
Tel. +82 63 213 2111 Fax. +82 63 213 4111 Website : www.tnkcarbon.com
Cel. +82 10 4440 8101 E-mail : junsang@tnkcarbon.com

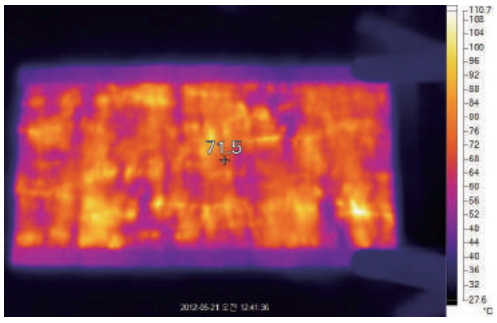
Technology Network Korea

# Flexible Heating system

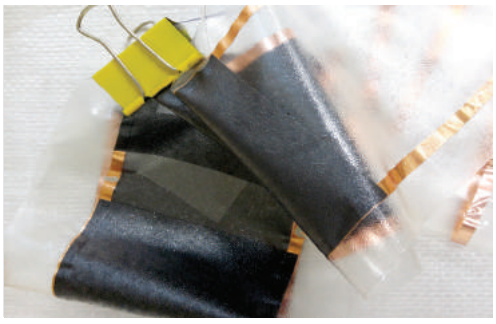
Flexible Heating system will help also complicated surface and can be used for flexible products heating. The best advantage is that this system is available under wrinkle condition. This system can be applied for glove, shoes, cloths and seat fabric. Temperature can be set as requirement (Application temperature is 20~70℃), and DC voltage and Ampere will be set as size and shape.

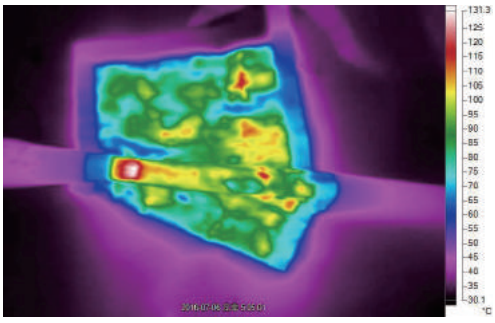
## Heating under Normal condition






## Heating under wrinkle condition





Copyright @ TnK Co.,LTD www. Tnkcarbon.com

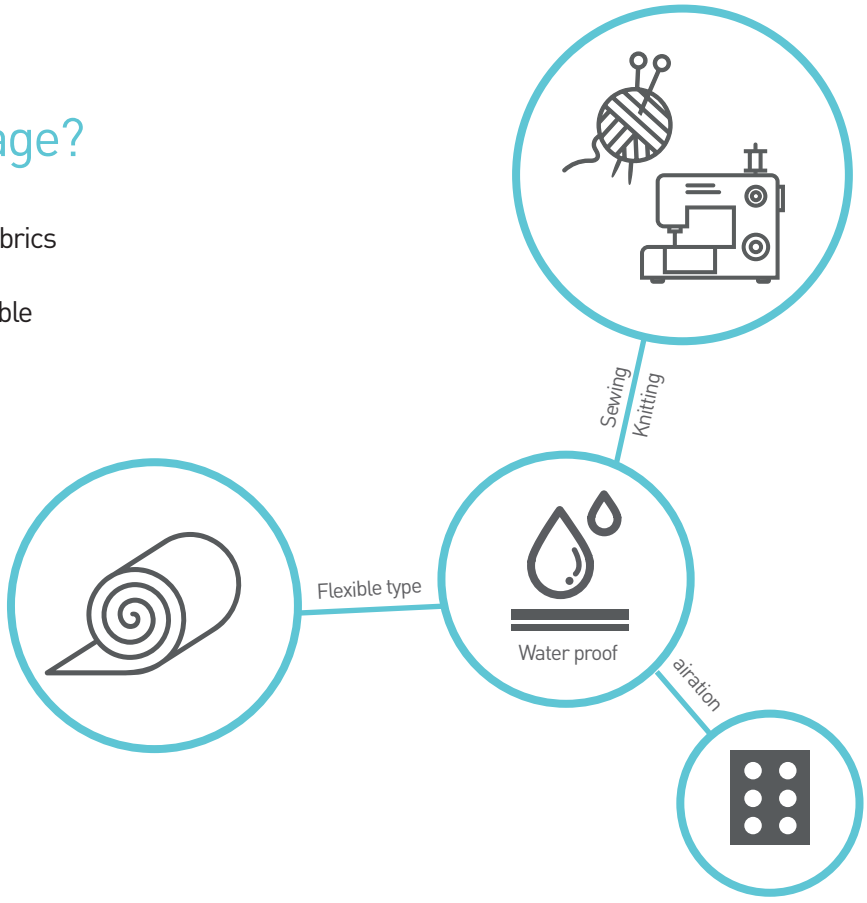
(54852) 205, Gigye-Venture BD, Yusang-ro 67, Jeon-ju, Jeonbuk, Korea
Tel. +82 63 213 2111 Fax. +82 63 213 4111 Website : www.tnkcarbon.com
Cel. +82 10 4440 8101 E-mail : junsang@tnkcarbon.com

Technology Network Korea

# Flexible Heating system

## What is advantage?

Flexible type
Can be bonded with other fabrics
Can be holed for airation
Sewing and Knitting is possible
Water proof



## Business Model

Supplying "Flexible Heating Fabric" manufacturing
R&D and Prototype for your products
Supplying Technical consulting

Technology Network Korea

Copyright @ TnK Co.,LTD www. Tnkcarbon.com