
WELCOME

KUFNER
INTERNATIONAL

GLOBAL SOLUTION
PROVIDER

2017



**Welcome to the
Kufner
Press
conference**



GLOBAL
SOLUTION
PROVIDER

overview about Kufner products at the booth

02.

- **Textile Heating System (THS)**
 - Application; car seat
 - Application; wall heating
 - Application; heated church pews
 - Application; workwear

- **Electro Magnetic Shielding / RFID**
 - Application; apparel
 - Application; wallet or portemonnaie

- **Leather stabilization**
 - Application; car seat
 - Application; furniture

- **Textile Innovation Products (TIP)**
 - cutting resistant fabric equipped with sensor technology



Textile Heating System (THS)

03.

THS = Textile Heating System



Textile Heating System (THS)

04.

Textile Heating System, is a Kufner patent construction. This product is designed for many different applications like car seats, wall heating, outdoor sport clothing, workwear and many others. A wide range of possible carrier materials is building the base for the bus- and heating wires. The high-quality technical fabric is produced on a continuous knitting process.



Textile Heating System (THS)

05.

- Voltage: 5 - 42 V
- Current: up to 6 Amps
- Geometry: mostly rectangular
- Temperature: up to 60° c.



Textile Heating System (THS)

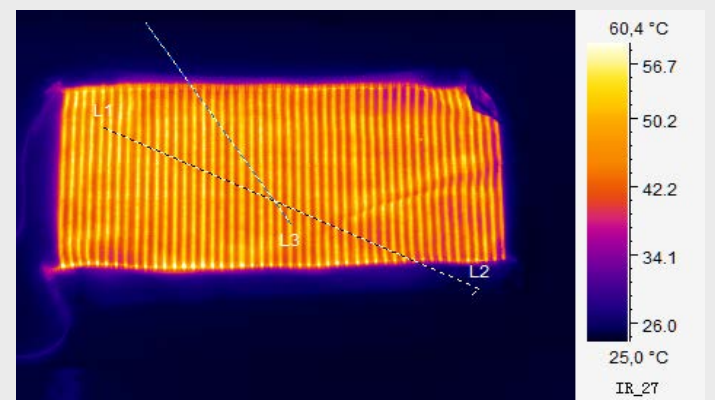
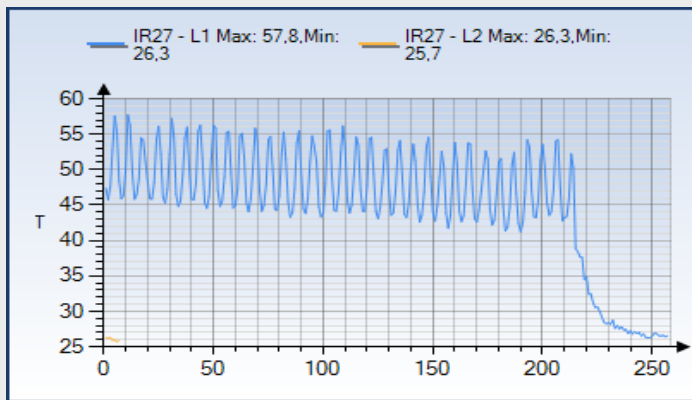
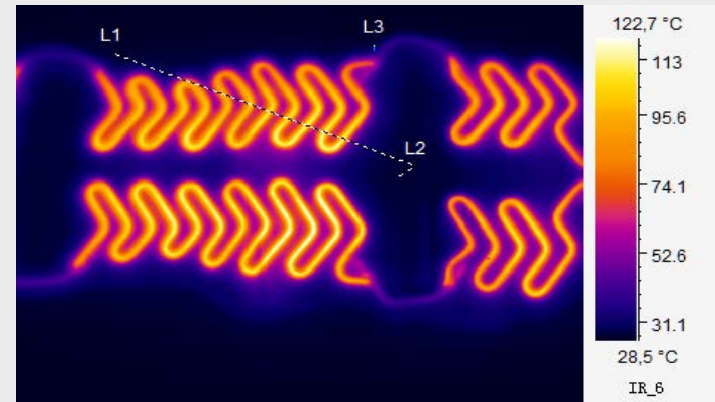
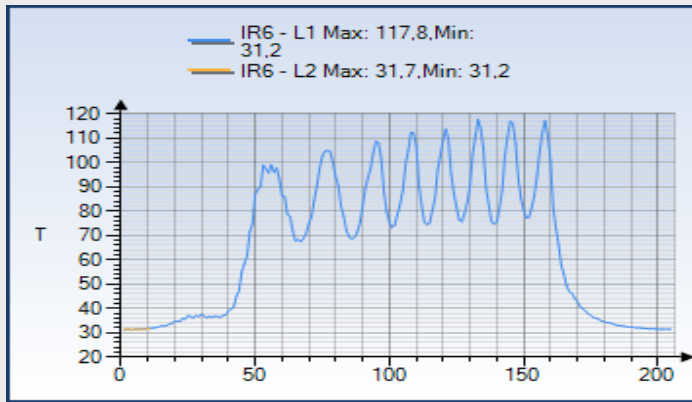
06.

Advantages:

- ultra-fast heating
- very low energy consumption
- uniform temperature
- perfect airflow properties
- flexible and smooth hand
- thin and lightly
- mechanical performance depends on the carrier material (woven, knitted and non-woven fabrics)
- multiple ways to apply THS, like from sewn-in, moulding, foam laminating, and stitching.

Textile Heating System (THS)

07.



Textile Heating System (THS)

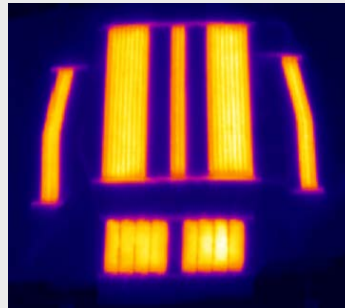
Application; seat

08.

OEM: Audi
Seat: B9 sport

Advantages:

- ultra-fast heating
- low energy consumption
- thin and light
- Good airflow properties



Textile Heating System (THS)

Application; wall heating

09.

Advantages:

- ultra-fast heating
- low energy consumption
- uniform temperature
- many different widths are possible



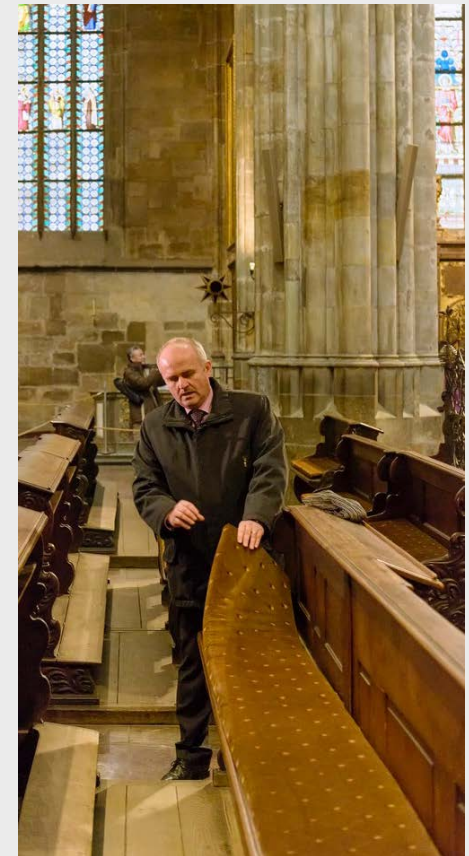
Textile Heating System (THS)

Application; heated church pews

010.

Advantages:

- Ultra-fast heating
- low energy consumption
- flexible and smooth hand
- thin and lightly



Textile Heating System (THS)

Application; apparel

011.

Advantages:

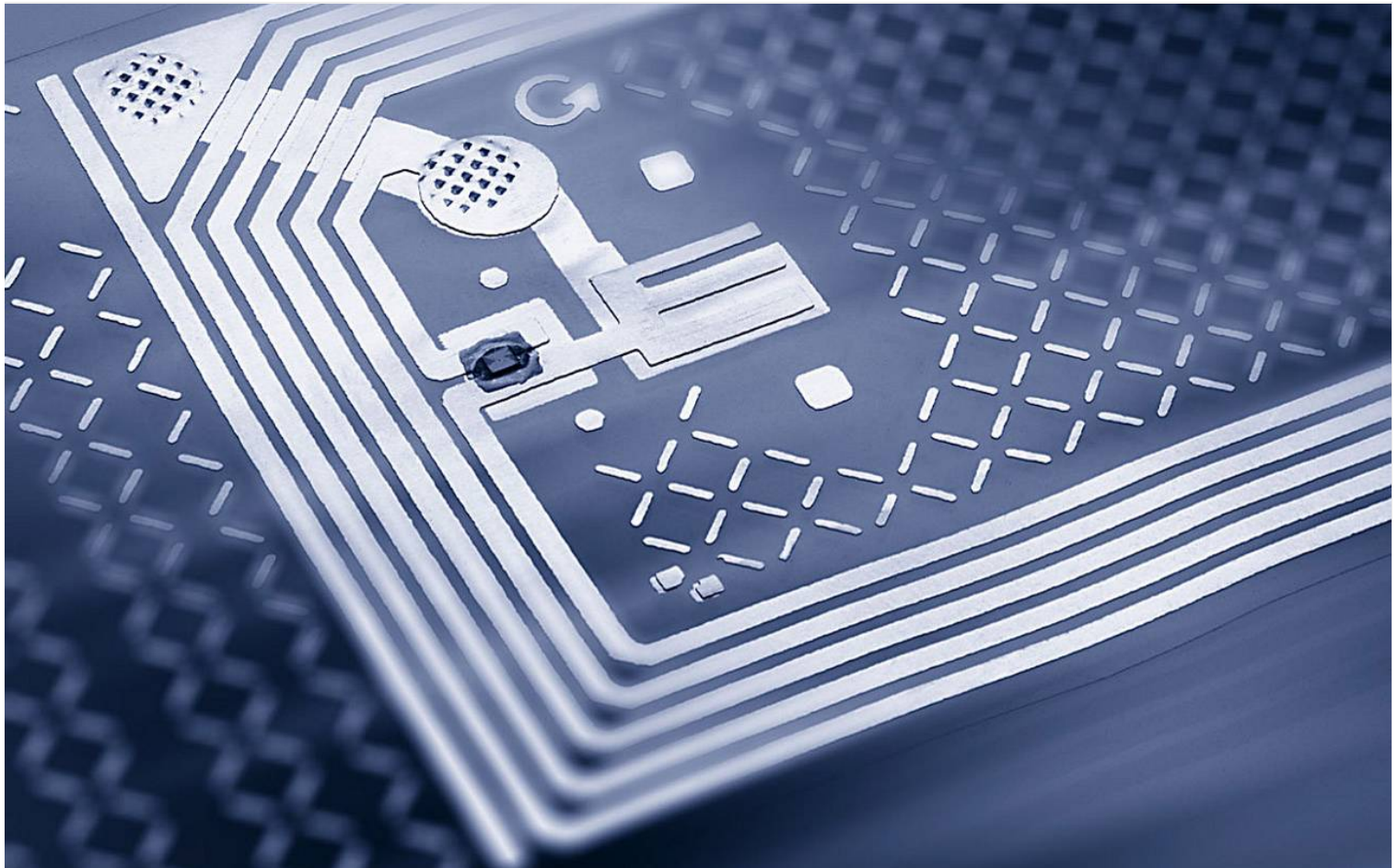
- textile haptic
- flexible, soft and stretchable
- washable / dry cleaning resistance
- airflow properties



Electro Magnetic Shielding / RFID



012.



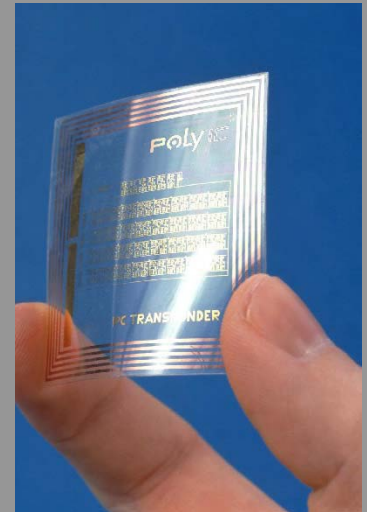
Electro Magnetic Shielding / RFID



013.

RFID = Radio Frequency Identification

- > a method for contactless storing and reading of data



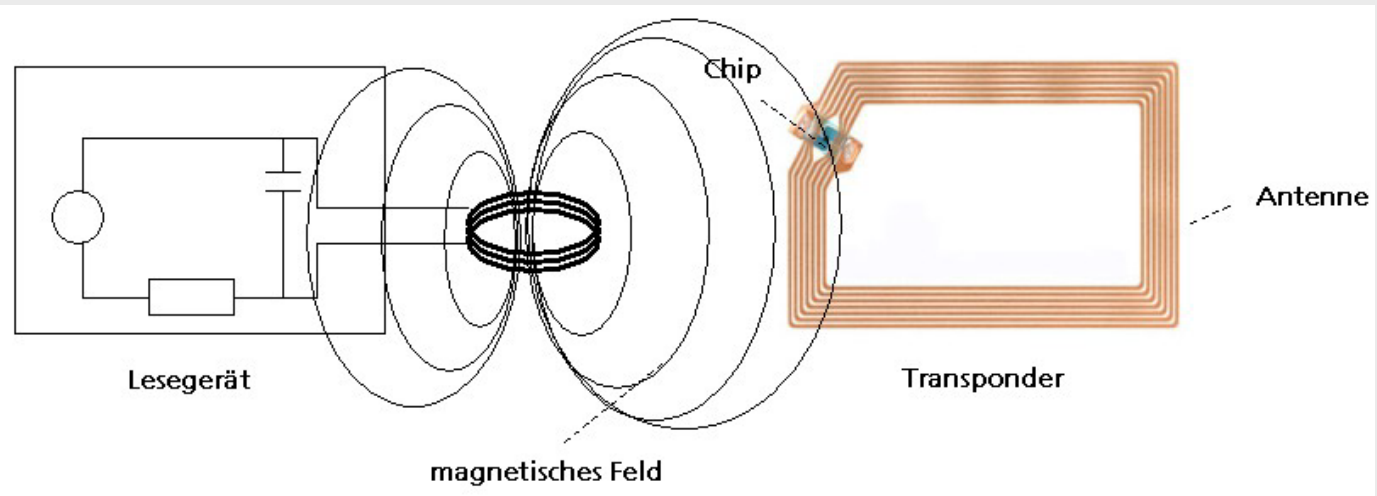
Electro Magnetic Shielding / RFID



014.

RFID TECHNOLOGY - COMPONENTS

- > TRANSPONDER
 - containing data and antenna
 - > RFID label / RFID chip / RFID tag
- > READER
 - containing antenna and energy supply
 - > possibly reader/writer



Electro Magnetic Shielding / RFID

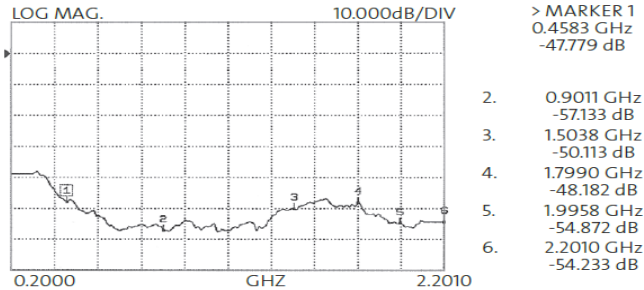


015.

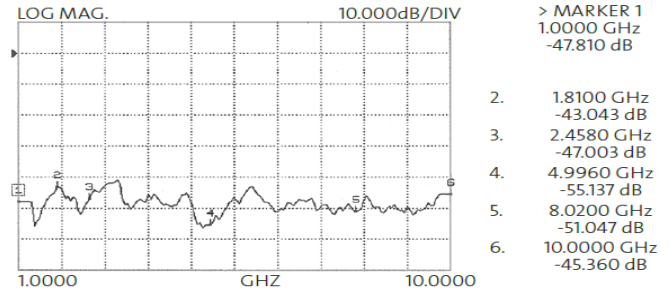
SHIELDING DATA

FREQUENCY:	450 MHz	GSM 900 (900 MHz) D-Netz	GSM 1800 (1800 MHz) E-Netz	UMTS (2450 MHz)	10 GHz
TEST 1 - TESTING METHOD: IEEE-STD 277-1997 AND MIL STD 285					
SHIELDING EFFECT: (VERTICAL = HORIZONTAL)	46 dB = 99,998 %	57 dB = 99,9998 %	48 dB = 99,998 %	47 dB = 99,998 %	45 dB = 99,997 %

SHIELDING VERTICAL:

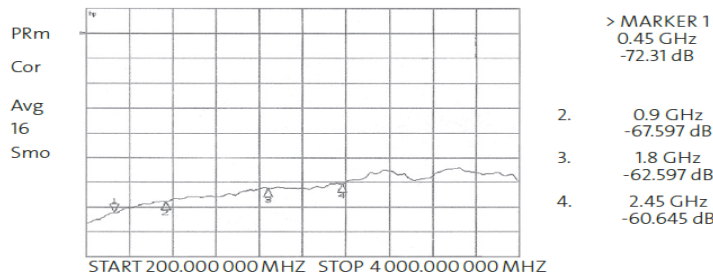


SHIELDING HORIZONTAL:



TEST 2 - TESTING METHOD: ASTM D-4935-89 (American Society for Testing and Materials)

SHIELDING EFFECT: (VERTICAL = HORIZONTAL)	72 dB = 99,99999 %	67 dB = 99,99998 %	62 dB = 99,9999 %	60 dB = 99,9999 %	--
---	-----------------------	-----------------------	----------------------	----------------------	----



**reduces radiation
by 99.9999%**

Electro Magnetic Shielding / RFID

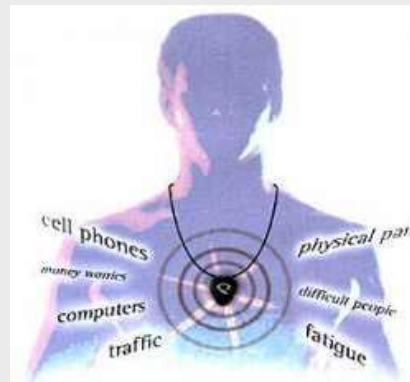
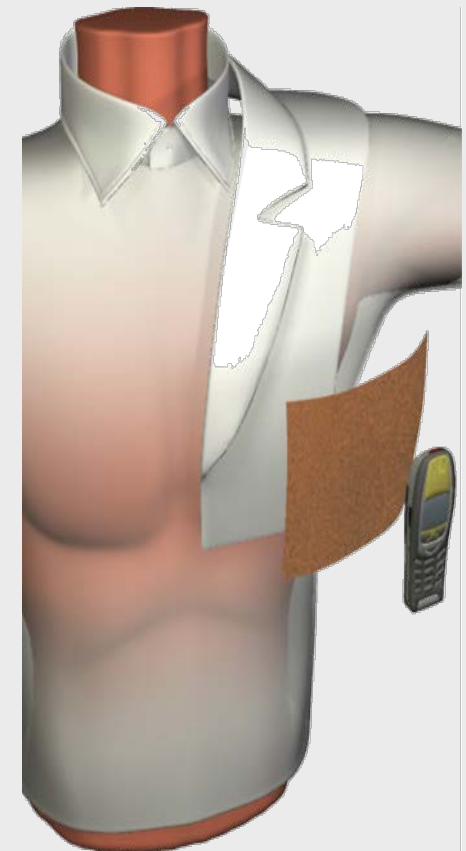
Application; apparel



016.

Advantages:

- protecting the body from electro-magnetic radiation
- light weight
- soft hand feel



Electro Magnetic Shielding / RFID

Application; wallet or portemonnaie

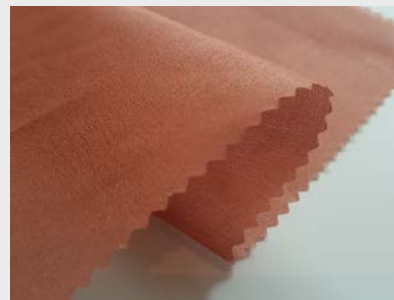
“the most secure wallet in the world”



017.

Advantages:

- Protecting data on RFID-chips against unauthorized access
- flexible and smooth hand
- thin and light



Leather stabilization

018.

Kufner is developing since 15 years different products for the stabilization of leather and fabrics.

Those products secure the dimensional stability without affecting the softness, touch and hand. Air permeability is given thru very open products which still fulfill the requirements of the car industry. We are laminating our stabilization material with our double spot glue dots to the leather.

KEY FACTS

- › Kufner is the number one brand for leather stabilisation in Europe,
- › North America and Asia have started since 2009, and are growing fast.

Leather stabilization

019.

INDUSTRIES

- > Automotive
- > Rail
- > Aviation
- > Furniture
- > Unique applications



Leather stabilization

020.

Master seat 3
(70.000 km)



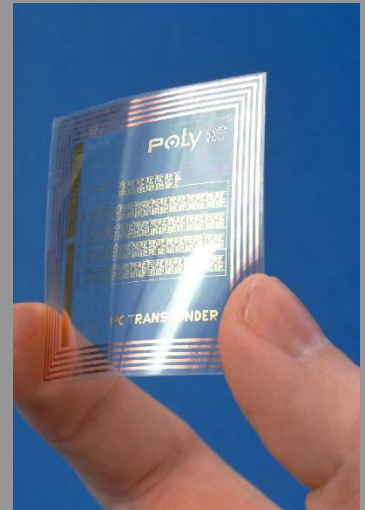
Sample seat 4
(62.000 km)
TX9080NA493A
1095



Textile Innovations Products (TIP)

021.

TIP = Textile Innovations Products



Textile Innovations Products (TIP)

022.

A customer developed together with Kufner cutting resistant fabric equipped with sensor technology.

^

Criftex®Prevention is a cutting resistant fabric equipped with sensor technology. A **Criftex®SAT Alarm Box** with GPS positioning and tracking system is connected to this sensor.

In case **Criftex®Prevention** gets damaged by a cutting attack an (optional) load acoustic alarm gets triggered. At the same time the alarm box contacts the **Criftex®App**, which is installed e.g. on a smart phone and informs the user visually and acoustically of course including the position of the attack and enables further tracing. Via the alarm center **Criftex®Service** Police or local security services can get alerted.

Alternatively or in addition the alarm box can get connected to existing tracking or alarm systems.

Textile Innovations Products (TIP)

023.

Advantages:

- cutting resistant fabric equipped with sensor technology
- acoustic alarm
- flexible and smooth hand
- thin and lightly

