

E-mobility

UNIFIED RESISTIVE
TECHNOLOGIES

SPORT +
NORMAL
ECONOMY

P N D **M** +/-



THICK FILM HEATING ELEMENTS FOR AUTOMOTIVE

SAFETY · ENERGY EFFICIENCY · RELIABILITY

THICK FILM HEATING ELEMENTS (TFE)

URT is a global producer with manufacturing and designing facilities in Europe and Asia with quick response to our customer's specific design and logistic requirements typical for this market.

Specific URT know-how is designing and manufacturing the thick film heating elements. URT provides a wide assortment of high quality heating elements and operational assemblies. A partnership with URT gives you a dedicated team of designers, project engineers and technical experts in the fields of electric heating, measurement and control, ready to provide you with the optimal solutions for your needs.

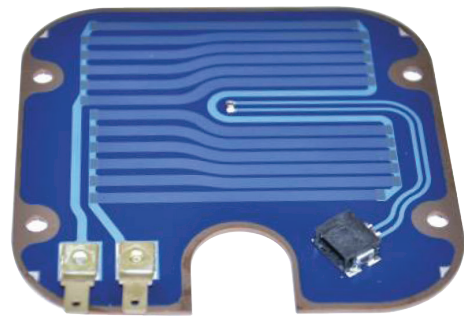
MAIN AVAILABLE TECHNICAL PARAMETERS

Dimensions	Maximal lenght	Max. power density on the heating track (W/cm ²)	Substrate material
Flat TFE - max. width 240mm	320mm	48 W/cm ²	AISI 444
Tube - diameter 15mm	200mm	53 W/cm ²	AISI 430
Tube - diameter 20mm	330mm	51 W/cm ²	AISI 304

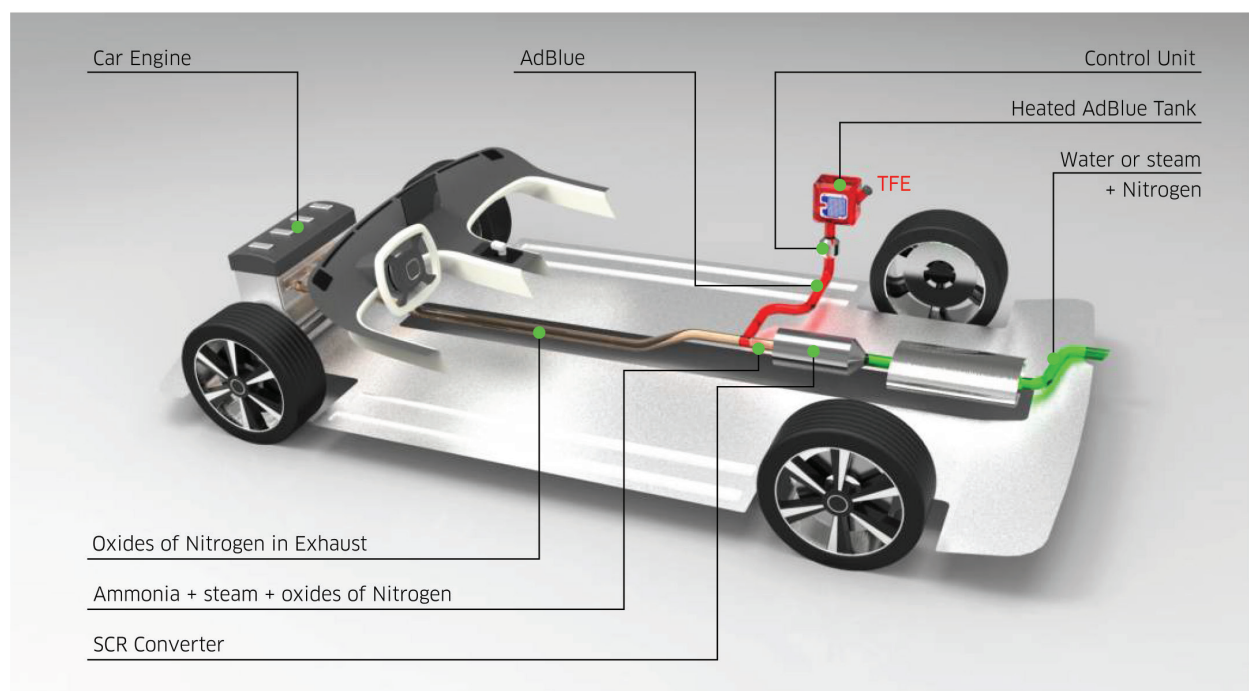
AD BLUE HEATER (SCR SYSTEM)

With continuous need for emission reduction in cars, it is necessary for car manufacturers to find constantly more efficient systems for CO₂ decreasing with help of AdBlue and other systems. On this field our company has a long-term experience with the deliveries of TFEs for the heating-up of urea (Ad Blue) for the automotive suppliers. We produce over 1,5 Mil. pcs of TFEs for this application yearly.

Thick film heating element



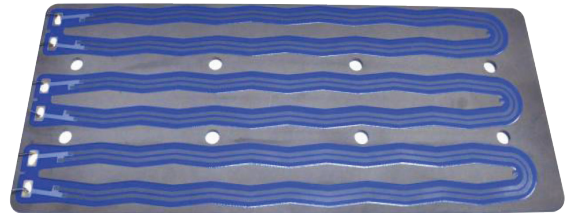
HEATING IN DIESEL CAR



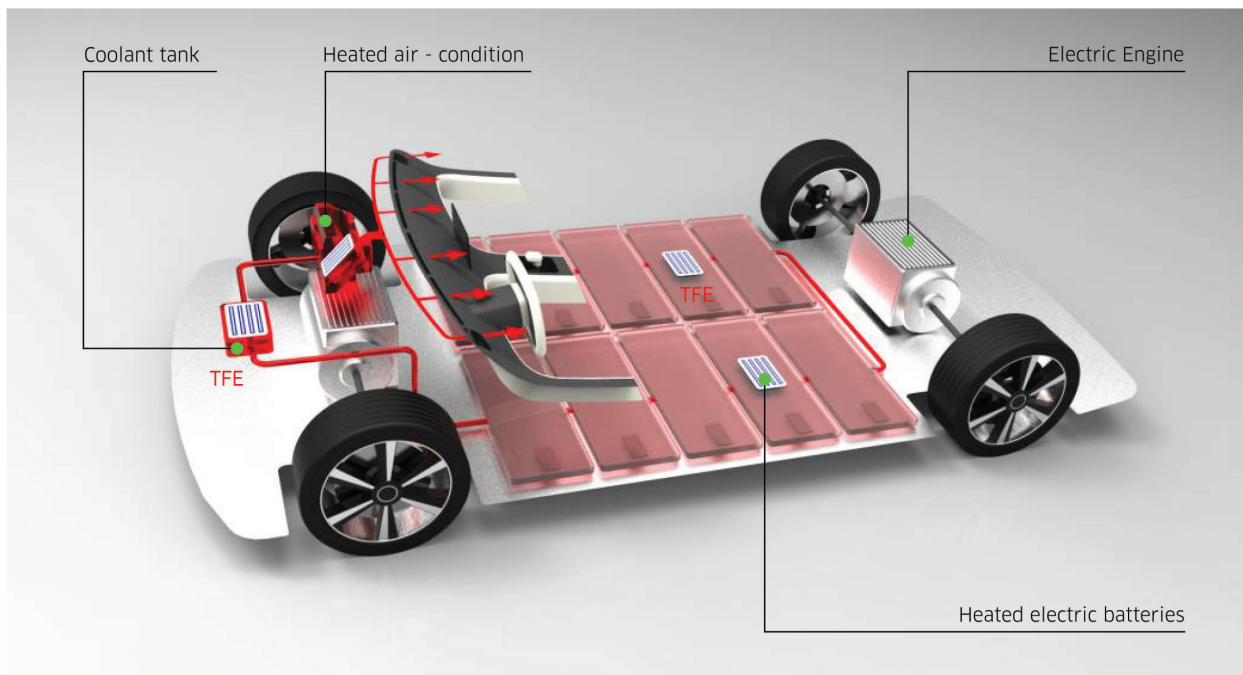
COOLANT HEATER

Another branch, where we cooperate with the suppliers to automotive on several projects, is heat-up of cabin and tempering the batteries in electro mobiles and hybrid cars. Our thick film heating elements offer compact and quality solution. One of the advantages is high power density on cm² in comparison with classic standard heating elements /tubular heating elements, PTC heaters, cartridge heaters, heating foils etc./ This means that the high power is concentrated on small area.

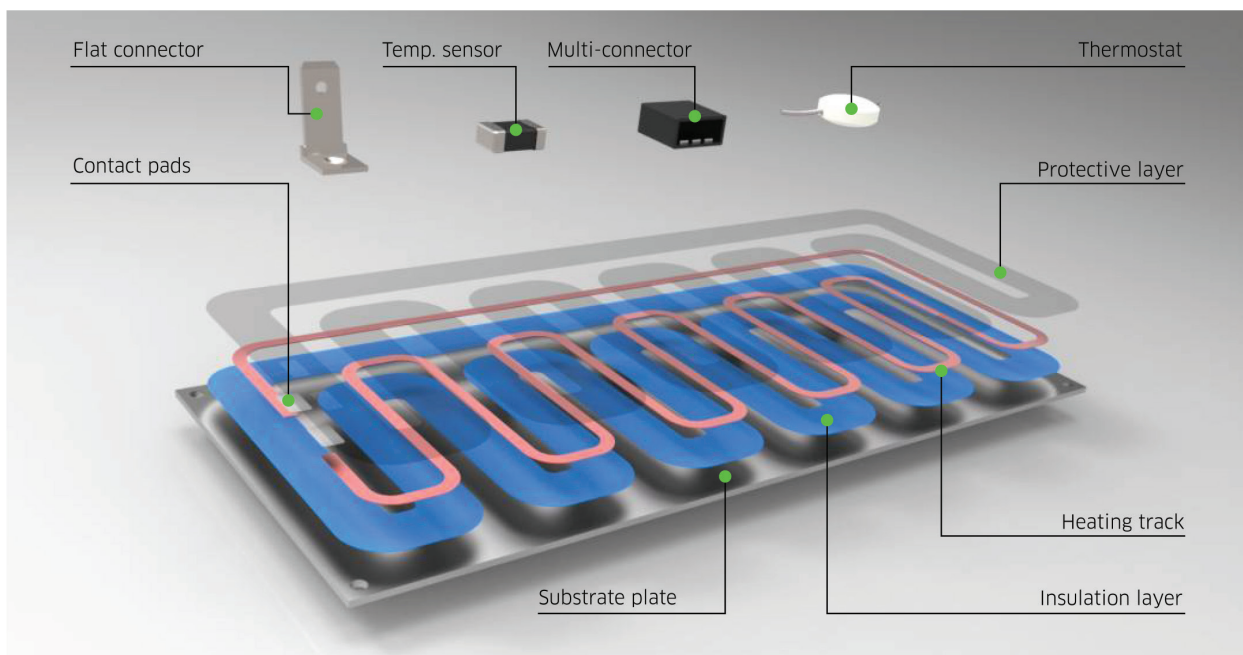
Thick film heating element



HEATING IN ELECTRIC CAR

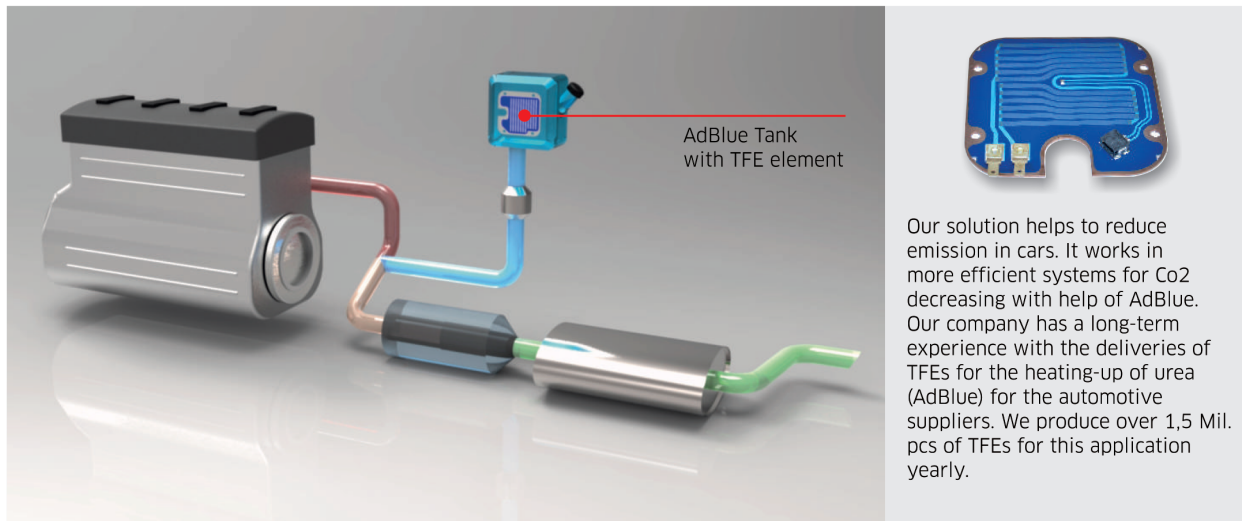


ACCESSORIES TO THICK FILM ELEMENTS

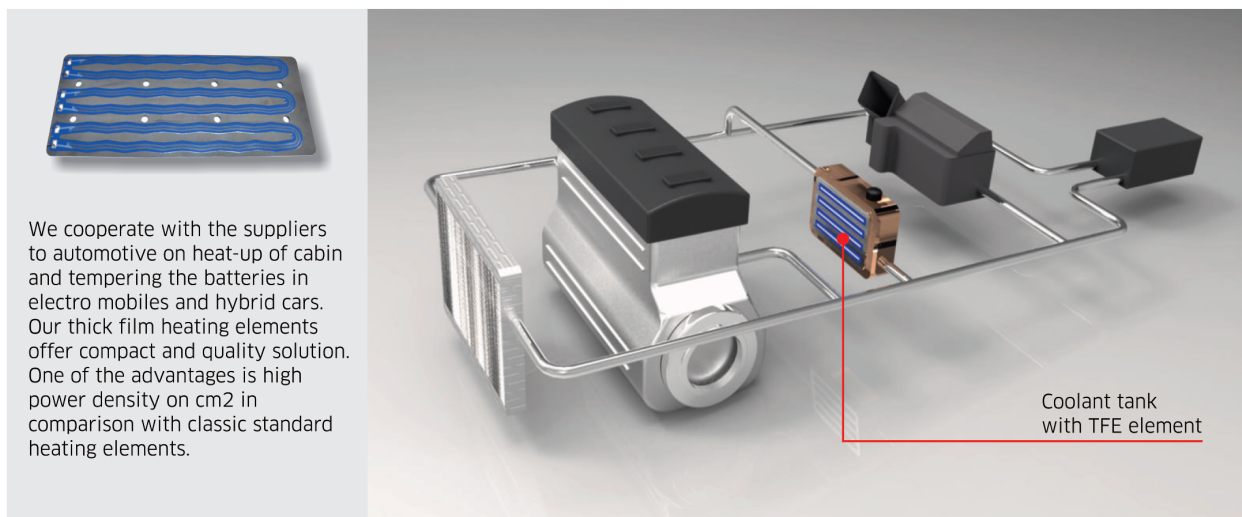


AUTOMOTIVE

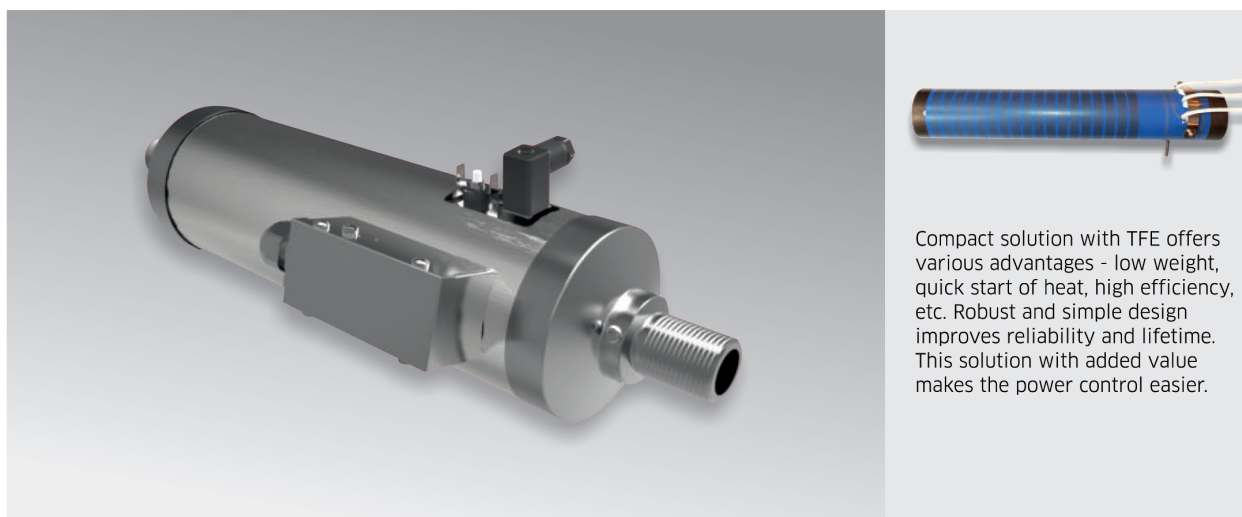
AdBlue



Coolant Heater



Heating in electrobuses





URT has one of the largest technology portfolio in the industry
We deliver competitive solutions in several industry sector

Our Markets

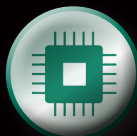
AUTOMOTIVE



OFF ROAD



INDUSTRIAL



CONSTRUCTION



MATERIAL HANDLING



MEDICAL



DEFENCE



HOME APPLIANCE



INNOVATION



**When the challenge is resistor technology
the world looks here for answer**



... the impossible made simple ...