



BACKER  
ELEKTRO CZ

## THICK FILM HEATING ELEMENTS FOR AUTOMOTIVE

SAFETY · ENERGY EFFICIENCY · RELIABILITY

# THICK FILM HEATING ELEMENTS (TFE) FOR AUTOMOTIVE

Backer is a global producer with manufacturing and designing facilities in Europe, U.S.A. and Asia with quick response to our customer’s specific design and logistic requirements typical for this market.

Specific Backer know-how is designing and manufacturing the thick film heating elements used in automotive. Backer provides a wide assortment of high quality heating elements and operational assemblies. A partnership with Backer 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.

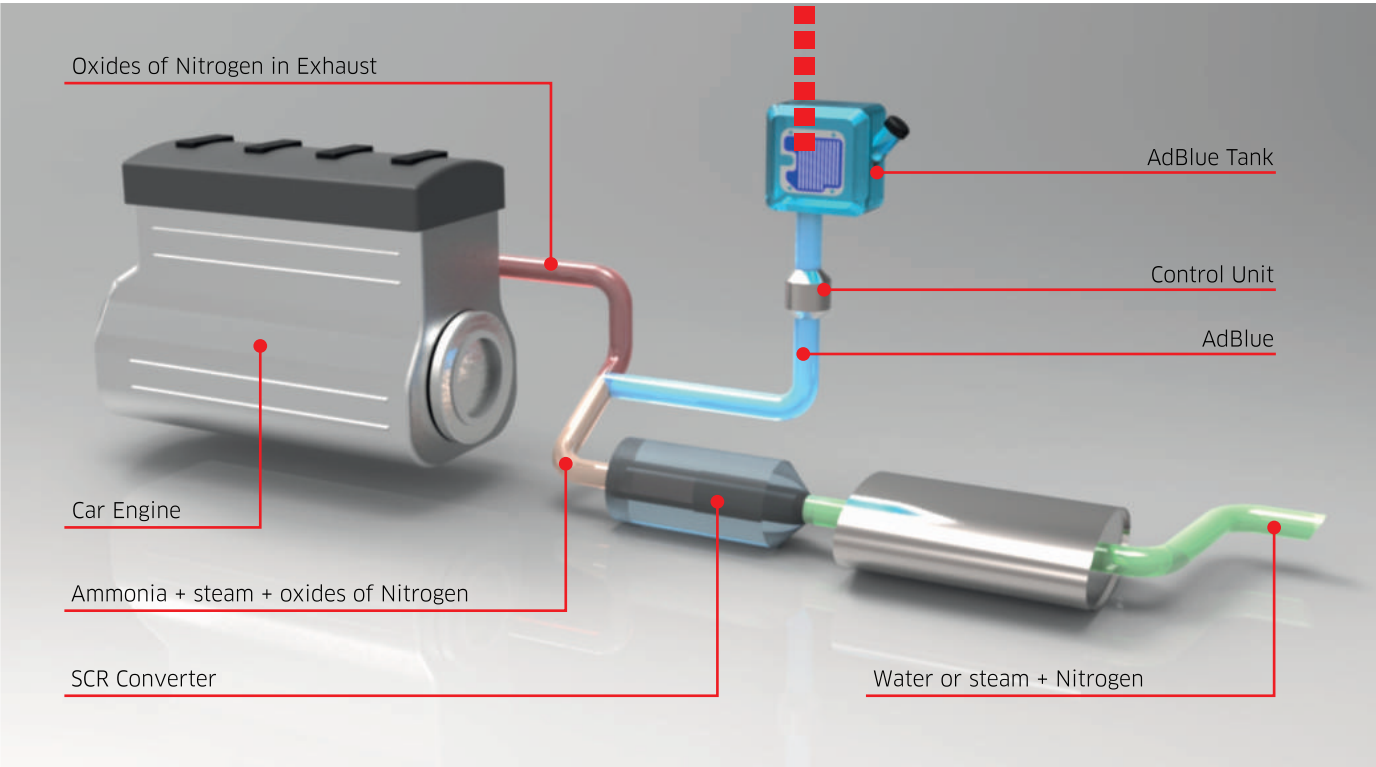
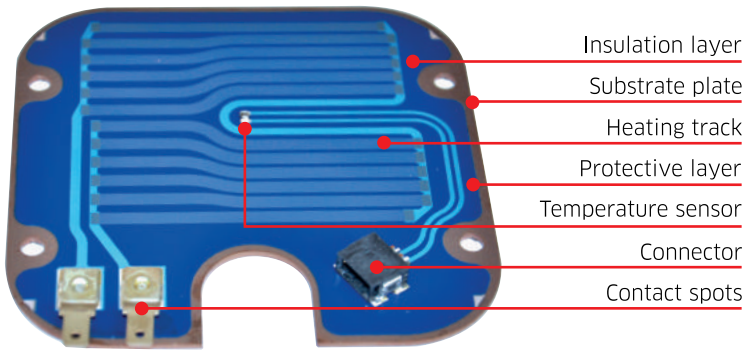
## MAIN AVAILABLE TECHNICAL PARAMETERS

Dimensions	Maximal lenght	Max. power density on the heating track (W/cm2)	Substrate material
Flat TFE - max. width 240mm	320mm	48 W/cm2	AISI 444
Tube - diameter 15mm	200mm	53 W/cm2	AISI 430
Tube - diameter 20mm	330mm	51 W/cm2	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 (AdBlue) for the automotive suppliers. We produce over 1,5 Mil. pcs of TFEs for this application yearly.

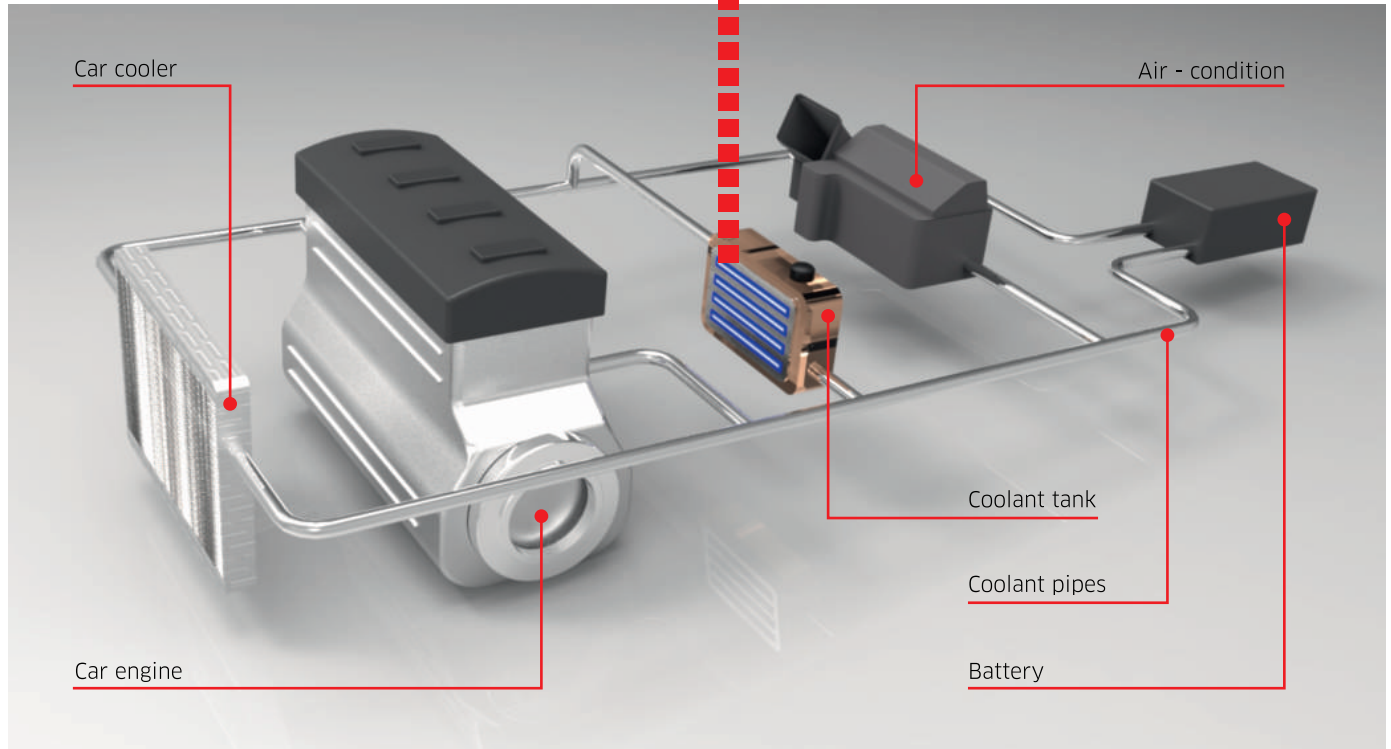
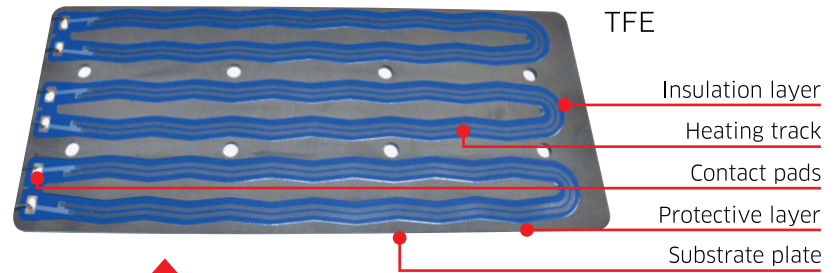
Thick film heating element



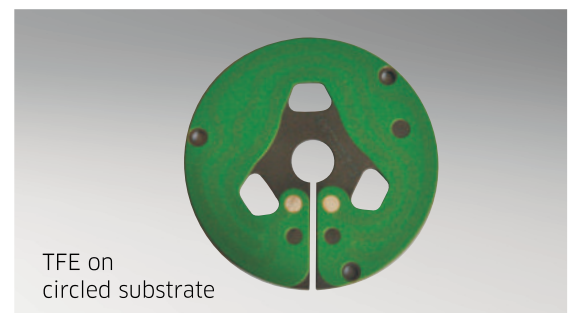
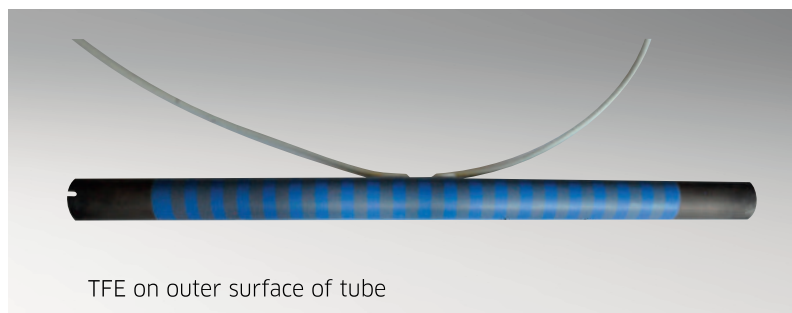


## COOLANT HEATER

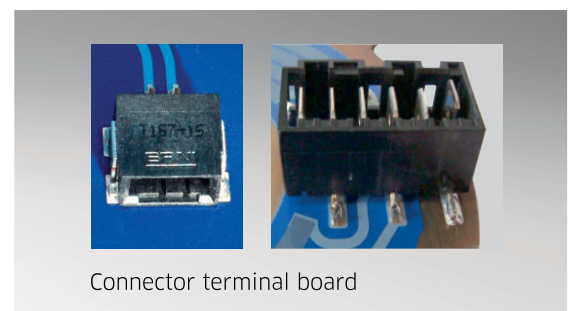
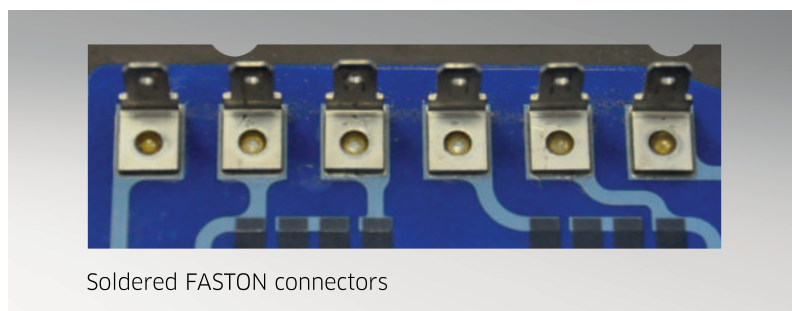
Another branch, where we cooperate with the suppliers to automotive on several projects, is heat-up of cabin and tempering the batteries in electro mobiles and hybrid cars. Our thick film heating elements offer compact and quality solution. One of the advantages is high power density on cm<sup>2</sup> 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.



## OTHER DESIGNS OF TFE ELEMENTS



## CONNECTORS





NORTH AMERICA



EUROPE



ASIA / OCEANIA

## INDUSTRY SECTORS



Customised solutions



Transportation



Energy / Environment



Advanced technology



Innovations

## QUALITY STANDARDS

We focus on delivery of the highest quality products combined with a flexible way of working. This permeates the whole process from sales, product development, manufacturing, customer service and logistics. Backer delivers products that meet all relevant standards and tests, certifying products according to customer specifications. We also have possibilities to carry out tests in modern labs, constantly improve our product performance and energy efficiency.

