

# APPLICATION SHEET

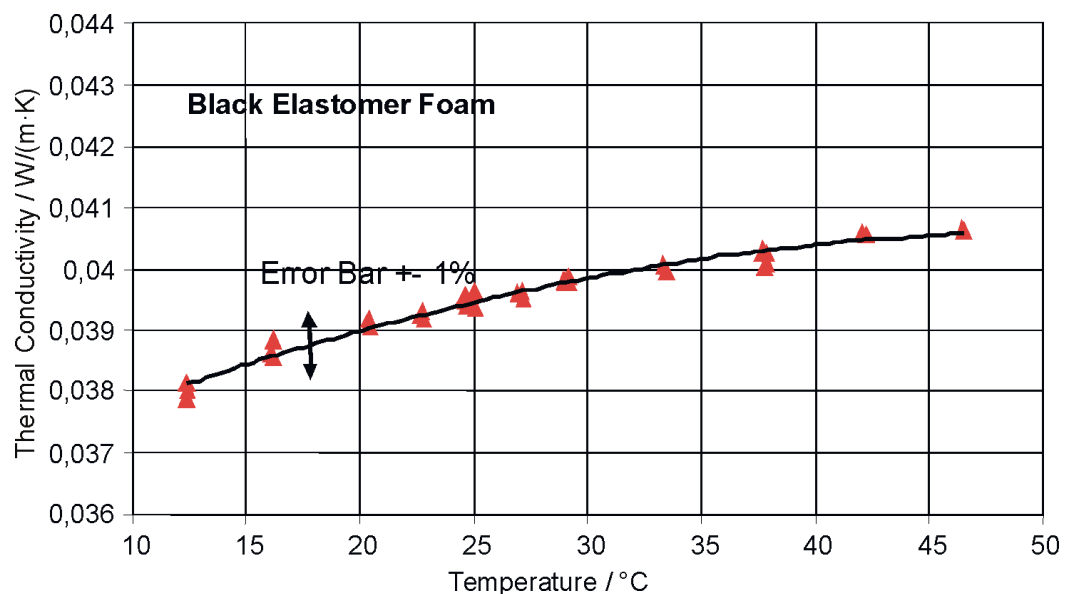
Polymers  
HFM 446 *Lambda Medium*

## Black Elastomer Foams

### Introduction

Black Elastomer Foams (ArmaFlex) are flexible, closed-cell insulating materials which can easily be shaped and used for various applications. They feature low thermal conductivity and very high resistance to water vapor transmission

and are widely used for condensation control and energy saving. The flexibility and the resistance against humidity make them suitable, for example, for automotive applications. The flexibility of the material even at high temperatures below 9°C make it suitable for cryogenic temperatures.



### Test Conditions

Temperature range: 12 ... 47°C  
Atmosphere: Ar (ml/min)  
Calibration standard: SRM 1450C  
Thickness: 3.020 cm

### Test Results

Presented here is the thermal conductivity of a black elastomer foam insulation between 12°C and 47°C. The sample was measured several times in this temperature range. Between the different runs, the sample was removed from the instrument, turned and put back. It can clearly be seen that the reproducibility of the results is significantly better than  $\pm 1\%$ . The thermal conductivity of this material increases versus temperature over the entire test range. At higher temperatures, however, the increase in thermal conductivity gets smaller.