

**DOKUZ EYLUL UNIVERSTY, IZMIR / TURKEY  
ENGINEERING FACULTY  
DEPARTMENT OF MECHANICAL ENGINEERING**

**REPORT**

**Subject:** Evaluation of Thermal Conductivity Coefficient  
**Company:** DBS Insaat Taah Kimya San ve Tic Ltd Sti

Material received by our department (Wall Mix G and Wall Mix W) were tested with the QTM machine, utilizing the hot wire method. Resulting average thermal conductivity values are given below:

<b>Sample Name</b>	<b>Testing Environment Temperature (°C)</b>	<b>Thermal Conductivity Coefficient (W/mK)</b>
Wall Mix G	25	0,661
Wall Mix W	25	0,787

- Thermal resistance (*R value*) =  $L/k$ , measured in  $K \cdot m^2 \cdot W^{-1}$

According the average thermal conductivity values of Wall Mix G and Wall Mix W, thermal resistance values may calculate with different thicknesses like given examples below:

<b><i>R Values</i> <math>K \cdot m^2 \cdot W^{-1}</math></b>	<b>Wall Mix G</b>	<b>Wall Mix W</b>
0,5 cm thickness of application	0,008 $m^2 K/W$	0,006 $m^2 K/W$
1,0 cm thickness of application	0,015 $m^2 K/W$	0,013 $m^2 K/W$
2,0 cm thickness of application	0,030 $m^2 K/W$	0,025 $m^2 K/W$
2,5 cm thickness of application	0,038 $m^2 K/W$	0,032 $m^2 K/W$