



DEMILEC (USA) LLC.
POLYURETHANE SYSTEMS MANUFACTURER

Date: February 11, 2011

Internal Memorandum

To: Mr. Weisz Roland, Demilec, Hungary
CC: Mr. Dave Lall, Vice President and General Manager, Demilec, USA, LLC.
Mrs. Nina Ivanovic, Office Manager and International Sales, Demilec, USA, LLC.

RE: The Thermal Conductivity and Resistivity of Sealection 500 and Heatlok Soy 200 tested at the temperature range (-20) – 5°C through 50 – 75°C

Hello Roland,

Sealection 500 and Heatlok Soy 200 specimens were tested at available temperature ranges on the Heat Flow Meter instrument located at Demilec, USA Laboratory on February 10, 2011.

The results of testing are shown in tables 1 and 2.

Table 1: Sealection 500 - Thermal Conductivity and Resistivity tested at the temperature range (-20) – 5°C through 50 – 75°C

Temperatures of the plates, °C		Thermal conductivity, k-value	Thermal resistivity, R-value	
Upper	Lower	W/mK	mK/W	ft. ² h°F/BTU.in
-19.90	5.10	0.03389	29.51	4.257
-9.98	15.02	0.03502	28.56	4.119
-0.01	25.01	0.03671	27.24	3.929
10.01	35.03	0.03849	25.98	3.748
20.01	45.03	0.04038	24.77	3.572
30.02	55.04	0.04220	23.70	3.418
40.02	65.04	0.04391	22.77	3.285
50.02	75.01	0.04570	21.88	3.156

Table 2: Heatlok Soy 200 - Thermal Conductivity and Resistivity tested at the temperature range -20°C – 5 through 50 – 75°C

Temperatures of the plates, °C		Thermal conductivity, k-value W/mK	Thermal resistivity, R-value	
Upper	Lower		mK/W	ft. ² h°F/BTU.in
-19.90	5.10	0.01820	54.94	7.924
-9.98	15.02	0.01899	52.66	7.596
-0.01	25.01	0.01960	51.02	7.358
10.01	35.03	0.02068	48.35	6.974
20.01	45.03	0.02180	45.86	6.615
30.02	55.04	0.02288	43.72	6.305
40.02	65.04	0.02390	41.84	6.035
50.02	75.01	0.02495	40.08	5.781

The testing of specimens was conducted in accordance to the ASTM C 518-04: Steady-state Heat Flux measurements and Thermal Transmission Properties by means of the Heat Flow Meter Apparatus. Tested specimens were cut to dimensions of approximately 305 x 305mm (12 by 12in) and to thickness of approximately 50mm (2in).

During the tests, specimen was placed in horizontal position between cold and hot plates which surfaces are maintained at the temperatures chosen to match calibration temperatures of the instrument. Average difference in temperatures between hot and cold plates was 25°C.

Density of tested Sealection 500 specimen was 0.47pcf and Heatlok Soy 200, 2.22pcf.

Note: The obtained results of testing are related only to the specimens tested at Demilec, USA Laboratory on February 10, 2011. Slight deviations in results are expected between different specimens.

Sincerely,



Julija Sinanovic
R & D Manager
Demilec, USA, LLC.