

Tuesday, November 02, 2021, Time 17:49

Wintherm32v3 Version 3.31.143 Uni

Instrument: F200s

Instrument Program Version 290

Instrument Serial Number: 2520

Sample Name: OSa.40.50.10#2 - 20211102

Thickness: 31.52mm

Rear Left : 31.37 mm      Rear Right : 31.50 mm

Front Left: 31.55 mm      Front Right: 31.67 mm

[ ]

[ ]

Thickness obtained : from instrument

## TEST RUN

Calibration used : User Type

Calibration File Id: IRMMCALIBRATION\_sn2520

Number of transducers per plate: 1

Number of transducers used per plate: 1

Number of Setpoints: 3

Setpoint duration: 110 min

Block Averages for setpoint 1 in SI units

Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]
15.84	24.34	-10426	4364	0.7116
14.99	24.97	-7206	2090	0.3817
15.00	25.01	-6021	2404	0.3447
15.00	25.01	-5282	2686	0.3261
15.00	25.01	-4751	2894	0.3128
15.00	25.01	-4374	3039	0.3033
15.00	25.01	-4108	3145	0.2967
15.00	25.01	-3922	3218	0.2921
15.01	25.01	-3790	3267	0.2887
15.01	25.02	-3699	3307	0.2865
15.01	25.02	-3632	3332	0.2848
15.01	25.02	-3585	3354	0.2838
15.00	25.01	-3558	3365	0.2831
15.00	25.01	-3531	3374	0.2824
15.00	25.01	-3509	3382	0.2818
15.00	25.01	-3491	3390	0.2814
15.00	25.01	-3486	3394	0.2814
15.00	25.01	-3480	3393	0.2810
15.00	25.01	-3476	3393	0.2810
15.00	25.01	-3473	3397	0.2810
15.00	25.02	-3470	3396	0.2808
15.01	25.01	-3469	3397	0.2808
15.01	25.01	-3467	3398	0.2808
15.01	25.02	-3467	3401	0.2808
15.00	25.01	-3463	3400	0.2807
15.01	25.02	-3464	3400	0.2808

Tuesday, November 02, 2021, Time 19:39

Setpoint No. 1

Setpoint Upper: 15.00 °C

Setpoint Lower: 25.00 °C

Temperature Upper: 15.01 °C

CalibFactor Upper: 0.026016

Results Upper: 0.2838 W/mK

Temperature Lower: 25.02 °C

CalibFactor Lower: 0.025934

Results Lower: 0.2777 W/mK

Percent Difference: 2.19%

Thermal Equilibrium Criteria:

Temperature Equilibrium: 0.20  
 Between Block HFM Equil.: 49  
 HFM Percent Change: 2.00  
 Min Number of Blocks: 4  
 Calculation Blocks: 3

Setpoint duration: 106 min

Block Averages for setpoint 2 in SI units

	Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]
-ne-	10.19	20.05	-11739	-2462	0.5956
-te-	9.99	20.00	-7676	1653	0.3858
-te-	10.00	20.00	-6511	2057	0.3540
-te-	10.00	20.00	-5632	2393	0.3314
-te-	10.00	20.01	-4994	2651	0.3155
-te-	10.00	20.00	-4536	2832	0.3039
-te-	10.00	20.01	-4215	2963	0.2960
-te-	10.00	20.01	-3984	3055	0.2902
-te-	10.00	20.01	-3820	3124	0.2862
-te-	10.00	20.00	-3705	3170	0.2833
-te-	10.00	20.01	-3619	3206	0.2813
-te-	10.00	20.01	-3564	3228	0.2799
-te-	10.00	20.01	-3521	3247	0.2788
-pe-	10.00	20.00	-3494	3258	0.2782
-pe-	10.00	20.00	-3469	3268	0.2775
-pe-	10.00	20.00	-3454	3274	0.2772
-pe-	10.00	20.00	-3443	3281	0.2770
-pe-	10.00	20.00	-3432	3282	0.2766
-pe-	10.00	20.00	-3425	3287	0.2765
-pe-	10.00	20.00	-3423	3289	0.2765
-pe-	10.00	20.01	-3418	3288	0.2762
-pe-	10.00	20.00	-3411	3293	0.2762
-pe-	10.00	20.01	-3411	3292	0.2761
-pe-	10.00	20.00	-3409	3293	0.2761
-pe-	10.00	20.01	-3411	3292	0.2761

Tuesday, November 02, 2021, Time 21:25

Setpoint No. 2  
 Setpoint Upper: 10.00 °C  
 Setpoint Lower: 20.00 °C  
 Temperature Upper: 10.00 °C  
 CalibFactor Upper: 0.026312  
 Results Upper: 0.2828 W/mK  
 Temperature Lower: 20.01 °C  
 CalibFactor Lower: 0.025969  
 Results Lower: 0.2694 W/mK  
 Percent Difference: 4.83%

Thermal Equilibrium Criteria:

Temperature Equilibrium: 0.20  
 Between Block HFM Equil.: 49  
 HFM Percent Change: 2.00  
 Min Number of Blocks: 4  
 Calculation Blocks: 3

Setpoint duration: 118 min

Block Averages for setpoint 3 in SI units

	Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]
-ne-	5.27	15.09	-11357	-2438	0.5868
-ne-	4.94	14.95	-7598	1588	0.3833
-te-	4.99	15.00	-6396	1979	0.3491
-te-	5.00	15.00	-5534	2323	0.3271
-te-	5.00	15.00	-4911	2569	0.3110
-te-	5.00	15.00	-4462	2750	0.2997
-te-	5.00	15.01	-4144	2874	0.2915
-te-	5.00	15.01	-3921	2971	0.2860
-te-	5.00	15.01	-3758	3034	0.2818
-te-	5.00	15.00	-3641	3085	0.2789
-te-	5.00	15.00	-3561	3114	0.2768

-te-	5.00	15.01	-3500	3140	0.2753
-te-	5.00	15.00	-3462	3153	0.2743
-pe-	4.99	15.00	-3440	3165	0.2738
-pe-	4.99	15.00	-3414	3177	0.2732
-pe-	4.99	15.00	-3395	3184	0.2727
-pe-	4.99	15.00	-3382	3190	0.2724
-pe-	5.00	15.00	-3370	3196	0.2722
-pe-	5.00	15.00	-3365	3197	0.2720
-pe-	5.00	15.01	-3362	3197	0.2718
-pe-	5.00	15.01	-3357	3199	0.2717
-pe-	5.00	15.00	-3353	3202	0.2717
-pe-	5.00	15.01	-3351	3202	0.2716
-pe-	5.00	15.01	-3351	3201	0.2716
-pe-	5.00	15.01	-3348	3202	0.2714
-pe-	5.00	15.00	-3343	3205	0.2714
-pe-	5.00	15.01	-3339	3206	0.2713
-pe-	5.01	15.01	-3341	3203	0.2713

Tuesday, November 02, 2021, Time 23:24

Setpoint No. 3  
 Setpoint Upper: 5.00 °C  
 Setpoint Lower: 15.00 °C  
 Temperature Upper: 5.00 °C  
 CalibFactor Upper: 0.026610  
 Results Upper: 0.2801 W/mK  
 Temperature Lower: 15.01 °C  
 CalibFactor Lower: 0.026002  
 Results Lower: 0.2625 W/mK  
 Percent Difference: 6.48%

#### Thermal Equilibrium Criteria:

Temperature Equilibrium: 0.20  
 Between Block HFM Equil.: 49  
 HFM Percent Change: 2.00  
 Min Number of Blocks: 4  
 Calculation Blocks: 3

#### Results Table -- SI Units

Mean Temp	Upper Cond	Lower Cond	Average Cond
20.01	0.2838	0.2777	0.2808
15.00	0.2828	0.2694	0.2761
10.01	0.2801	0.2625	0.2713