

Friday, May 28, 2021, Time 10:31

Wintherm32v3 Version 3.31.143 Uni

Instrument: F200s

Instrument Program Version 290

Instrument Serial Number: 2520

Sample Name: RA1-F1_20210528

Thickness: 37.90mm

Rear Left : 37.57 mm Rear Right : 37.97 mm

Front Left: 37.85 mm Front Right: 38.20 mm

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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: 97 min

Block Averages for setpoint 1 in SI units

Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]	SampleU [°C]	SampleL [°C]
16.11	24.61	-11521	3427	1.731	19.80	24.01
14.99	24.96	-6810	1823	0.6317	17.73	24.43
15.00	25.01	-5479	2311	0.5424	17.26	24.31
15.00	25.01	-4906	2750	0.5273	17.02	24.15
15.00	25.01	-4544	3105	0.5246	16.87	24.03
15.00	25.01	-4298	3353	0.5237	16.77	23.95
15.00	25.01	-4137	3516	0.5229	16.71	23.90
15.00	25.01	-4030	3625	0.5226	16.66	23.86
15.00	25.01	-3958	3698	0.5221	16.63	23.84
15.00	25.01	-3914	3739	0.5217	16.61	23.82
14.99	25.00	-3895	3759	0.5215	16.59	23.80
14.99	25.00	-3870	3785	0.5214	16.58	23.79
14.99	25.00	-3849	3810	0.5214	16.57	23.78
15.00	25.00	-3835	3825	0.5214	16.56	23.78
15.00	25.01	-3827	3837	0.5212	16.56	23.78
15.00	25.01	-3821	3844	0.5209	16.55	23.79
15.00	25.01	-3819	3846	0.5207	16.55	23.79
15.00	25.01	-3817	3847	0.5205	16.55	23.79
15.01	25.01	-3816	3847	0.5204	16.55	23.79
15.01	25.01	-3816	3847	0.5205	16.55	23.79
15.00	25.01	-3813	3849	0.5203	16.55	23.79
15.00	25.01	-3809	3852	0.5201	16.55	23.79
15.01	25.01	-3811	3850	0.5201	16.55	23.79

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Setpoint No. 1

Setpoint Upper: 15.00 °C

Setpoint Lower: 25.00 °C

Temperature Upper: 16.55 °C

CalibFactor Upper: 0.025925

Results Upper: 0.5173 W/mK

Temperature Lower: 23.79 °C

CalibFactor Lower: 0.025943

Results Lower: 0.5230 W/mK

Percent Difference: 1.10%

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: 89 min

Block Averages for setpoint 2 in SI units

	Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]	SampleU [°C]	SampleL [°C]
-ne-	10.19	20.09	-11294	-4744	1.153	14.10	20.96
-te-	9.99	19.99	-7055	378	0.5299	13.00	19.94
-te-	10.00	20.00	-6041	1348	0.5211	12.58	19.60
-te-	10.00	20.00	-5320	2083	0.5181	12.28	19.35
-te-	10.00	20.00	-4826	2590	0.5162	12.07	19.18
-te-	10.00	20.00	-4486	2942	0.5152	11.92	19.06
-te-	10.00	20.00	-4258	3178	0.5147	11.83	18.97
-te-	10.00	20.00	-4093	3347	0.5140	11.76	18.92
-te-	10.00	20.00	-3989	3460	0.5138	11.71	18.88
-te-	10.00	20.00	-3908	3541	0.5135	11.68	18.86
-te-	10.00	20.00	-3856	3593	0.5131	11.66	18.84
-te-	10.00	20.01	-3828	3626	0.5134	11.64	18.83
-pe-	10.00	20.00	-3804	3647	0.5131	11.63	18.81
-pe-	10.00	20.00	-3781	3672	0.5131	11.63	18.81
-pe-	10.00	20.00	-3768	3686	0.5131	11.62	18.80
-pe-	10.00	20.00	-3758	3694	0.5130	11.62	18.80
-pe-	10.00	20.00	-3755	3695	0.5129	11.62	18.80
-pe-	10.00	20.00	-3746	3705	0.5130	11.62	18.80
-pe-	10.00	20.01	-3746	3705	0.5128	11.62	18.80
-pe-	10.00	20.00	-3739	3709	0.5127	11.62	18.80
-pe-	10.01	20.01	-3742	3707	0.5127	11.62	18.80

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Setpoint No. 2
 Setpoint Upper: 10.00 °C
 Setpoint Lower: 20.00 °C
 Temperature Upper: 11.62 °C
 CalibFactor Upper: 0.026217
 Results Upper: 0.5175 W/mK
 Temperature Lower: 18.80 °C
 CalibFactor Lower: 0.025978
 Results Lower: 0.5080 W/mK
 Percent Difference: 1.86%

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: 93 min

Block Averages for setpoint 3 in SI units

	Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]	SampleU [°C]	SampleL [°C]
-ne-	5.28	15.13	-10941	-4655	1.146	9.25	16.02
-ne-	4.93	14.90	-7008	206	0.5257	8.04	14.91
-te-	5.00	15.00	-5930	1312	0.5187	7.64	14.61
-te-	5.00	15.00	-5214	2019	0.5133	7.34	14.37
-te-	5.00	15.00	-4728	2518	0.5111	7.13	14.20
-te-	5.00	15.00	-4394	2866	0.5100	6.98	14.08
-te-	5.00	15.00	-4169	3105	0.5094	6.88	14.00
-te-	5.00	15.00	-4012	3268	0.5088	6.82	13.94
-te-	5.00	15.00	-3903	3380	0.5084	6.77	13.90
-te-	5.00	15.01	-3832	3457	0.5083	6.74	13.88
-te-	5.00	15.01	-3781	3509	0.5080	6.71	13.86
-te-	5.00	15.00	-3751	3549	0.5084	6.70	13.84
-pe-	5.00	15.00	-3732	3564	0.5082	6.69	13.83
-pe-	4.99	15.00	-3712	3585	0.5079	6.68	13.83
-pe-	4.99	15.00	-3698	3597	0.5081	6.67	13.82
-pe-	5.00	15.00	-3691	3609	0.5083	6.67	13.82
-pe-	5.00	15.00	-3685	3615	0.5080	6.67	13.82
-pe-	5.00	15.00	-3682	3617	0.5078	6.67	13.82

-pe-	5.00	15.00	-3679	3621	0.5079	6.67	13.82
-pe-	5.00	15.00	-3675	3623	0.5078	6.67	13.82
-pe-	5.00	15.00	-3673	3623	0.5076	6.67	13.82
-pe-	5.00	15.00	-3674	3623	0.5077	6.67	13.82

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Setpoint No. 3
Setpoint Upper: 5.00 °C
Setpoint Lower: 15.00 °C
Temperature Upper: 6.67 °C
CalibFactor Upper: 0.026511
Results Upper: 0.5161 W/mK
Temperature Lower: 13.82 °C
CalibFactor Lower: 0.026010
Results Lower: 0.4993 W/mK
Percent Difference: 3.31%

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
20.17	0.5173	0.5230	0.5202
15.21	0.5175	0.5080	0.5128
10.24	0.5161	0.4993	0.5077