

Caractéristiques thermodynamiques du R437A à l'état saturé (liquide)

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

θ bulle [°C]	P abs [bar]	θ rosée [°C]	h _L [kJ/kg]	h _V [kJ/kg]	v _L [dm³/kg]	v _V [dm³/kg]	μ _L [μPa.s]	μ _V [μPa.s]	S _V [kJ/kg.°C]
-80	0.061	-74.81	98.68	341.1	0.663	2604	927.1	7.995	1.800
-75	0.088	-69.91	104.8	344.2	0.669	1840	827.4	8.192	1.786
-70	0.125	-65.00	110.9	347.3	0.675	1327	743.9	8.388	1.773
-65	0.173	-60.10	117.0	350.4	0.682	974.5	673.2	8.585	1.762
-60	0.236	-55.20	123.2	353.6	0.688	727.9	612.6	8.781	1.752
-55	0.317	-50.29	129.3	356.7	0.695	552.3	560.0	8.976	1.743
-50	0.420	-45.39	135.5	359.8	0.702	425.1	514.1	9.172	1.735
-45	0.547	-40.48	141.8	363.0	0.710	331.5	473.7	9.367	1.728
-40	0.704	-35.58	148.1	366.1	0.717	261.6	437.9	9.562	1.721
-35	0.895	-30.67	154.4	369.2	0.725	208.8	405.9	9.756	1.716
-30	1.125	-25.77	160.7	372.3	0.733	168.3	377.1	9.950	1.711
-28	1.229	-23.81	163.3	373.6	0.736	154.8	366.4	10.03	1.709
-26	1.341	-21.85	165.8	374.8	0.739	142.6	356.1	10.11	1.707
-24	1.460	-19.89	168.4	376.0	0.743	131.6	346.3	10.18	1.706
-22	1.587	-17.93	171.0	377.2	0.746	121.5	336.7	10.26	1.704
-20	1.723	-15.96	173.6	378.4	0.750	112.4	327.6	10.34	1.703
-18	1.868	-14.00	176.2	379.7	0.753	104.1	318.8	10.41	1.701
-16	2.022	-12.04	178.8	380.9	0.757	96.51	310.2	10.49	1.700
-14	2.186	-10.08	181.4	382.1	0.760	89.59	302.0	10.57	1.699
-12	2.360	-8.122	184.0	383.2	0.764	83.26	294.1	10.65	1.698
-10	2.545	-6.161	186.7	384.4	0.768	77.47	286.4	10.72	1.697
-8	2.740	-4.201	189.3	385.6	0.772	72.15	278.9	10.80	1.695
-6	2.947	-2.241	192.0	386.8	0.776	67.27	271.7	10.88	1.694
-4	3.165	-0.281	194.6	387.9	0.780	62.78	264.8	10.95	1.693
-2	3.396	1.679	197.3	389.1	0.784	58.64	258.0	11.03	1.693
0	3.639	3.638	200.0	390.2	0.788	54.83	251.5	11.11	1.692
2	3.896	5.598	202.7	391.3	0.792	51.31	245.1	11.18	1.691
4	4.166	7.557	205.4	392.4	0.797	48.05	238.9	11.26	1.690
6	4.450	9.516	208.1	393.5	0.801	45.04	232.9	11.34	1.689
8	4.749	11.47	210.9	394.6	0.806	42.25	227.1	11.41	1.688
10	5.062	13.43	213.6	395.7	0.810	39.66	221.4	11.49	1.688
12	5.391	15.39	216.4	396.8	0.815	37.26	215.9	11.56	1.687
14	5.736	17.35	219.2	397.8	0.820	35.03	210.5	11.64	1.686
16	6.097	19.31	222.0	398.9	0.825	32.95	205.3	11.72	1.686
18	6.476	21.26	224.8	399.9	0.830	31.02	200.2	11.79	1.685
20	6.871	23.22	227.6	400.9	0.835	29.21	195.2	11.87	1.685
22	7.285	25.18	230.4	401.9	0.841	27.53	190.3	11.94	1.684
24	7.717	27.14	233.3	402.9	0.846	25.95	185.5	12.02	1.683
26	8.168	29.09	236.1	403.8	0.852	24.48	180.9	12.10	1.683
28	8.638	31.05	239.0	404.8	0.858	23.11	176.3	12.17	1.682
30	9.129	33.00	241.9	405.7	0.864	21.82	171.9	12.25	1.682
32	9.640	34.96	244.9	406.6	0.870	20.61	167.5	12.33	1.681
34	10.17	36.91	247.8	407.5	0.876	19.47	163.2	12.40	1.680
36	10.73	38.87	250.8	408.3	0.883	18.40	159.1	12.48	1.680
38	11.30	40.82	253.8	409.2	0.890	17.40	155.0	12.58	1.679
40	11.90	42.77	256.8	410.0	0.897	16.46	150.9	12.69	1.678
45	13.50	47.65	264.4	411.8	0.916	14.33	141.1	12.99	1.677
50	15.26	52.52	272.2	413.5	0.937	12.48	131.7	13.33	1.674
55	17.18	57.39	280.2	414.9	0.960	10.88	122.7	13.71	1.672
60	19.28	62.25	288.4	416.0	0.986	9.467	113.9	14.15	1.669
65	21.57	67.10	296.9	416.7	1.016	8.223	105.3	14.66	1.665
70	24.06	71.94	305.7	417.0	1.051	7.115	96.77	15.29	1.660
75	26.76	76.76	315.0	416.6	1.094	6.119	88.26	16.07	1.654
80	29.69	81.56	324.8	415.3	1.147	5.208	79.56	17.10	1.646
85	32.86	86.32	335.6	412.7	1.220	4.354	70.33	18.57	1.634
90	36.30	91.01	348.3	407.2	1.335	3.503	59.74	20.99	1.615

Caractéristiques thermodynamiques du R437A à l'état saturé (vapeur)

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

θ rosée [°C]	P abs [bar]	θ bulle [°C]	h _L [kJ/kg]	h _V [kJ/kg]	v _L [dm³/kg]	v _V [dm³/kg]	μ _L [μPa.s]	μ _V [μPa.s]	S _V [kJ/kg.°C]
-80	0.040	-85.29	92.23	337.8	0.656	3852	1056	7.786	1.816
-75	0.060	-80.19	98.45	341.0	0.663	2640	931.3	7.987	1.800
-70	0.087	-75.09	104.7	344.1	0.669	1852	829.1	8.188	1.786
-65	0.125	-70.00	110.9	347.3	0.675	1326	743.9	8.389	1.773
-60	0.174	-64.90	117.1	350.5	0.682	968.5	671.9	8.589	1.762
-55	0.239	-59.80	123.4	353.7	0.689	719.8	610.3	8.789	1.751
-50	0.323	-54.70	129.7	356.9	0.696	543.6	557.1	8.988	1.742
-45	0.429	-49.61	136.0	360.1	0.703	416.6	510.8	9.187	1.734
-40	0.561	-44.51	142.4	363.3	0.710	323.7	470.0	9.386	1.727
-35	0.725	-39.41	148.8	366.5	0.718	254.6	433.9	9.585	1.721
-30	0.924	-34.31	155.2	369.7	0.726	202.6	401.7	9.783	1.715
-28	1.015	-32.27	157.8	370.9	0.729	185.4	389.8	9.862	1.713
-26	1.113	-30.23	160.4	372.2	0.732	170.0	378.4	9.941	1.711
-24	1.219	-28.19	163.0	373.4	0.736	156.1	367.4	10.02	1.709
-22	1.332	-26.16	165.6	374.7	0.739	143.5	356.9	10.10	1.708
-20	1.453	-24.12	168.3	375.9	0.743	132.2	346.8	10.18	1.706
-18	1.582	-22.08	170.9	377.2	0.746	121.9	337.1	10.26	1.704
-16	1.721	-20.04	173.5	378.4	0.750	112.6	327.7	10.34	1.703
-14	1.868	-18.00	176.2	379.7	0.753	104.1	318.7	10.41	1.701
-12	2.026	-15.96	178.8	380.9	0.757	96.35	310.0	10.49	1.700
-10	2.193	-13.92	181.5	382.1	0.761	89.32	301.7	10.57	1.699
-8	2.371	-11.88	184.2	383.3	0.764	82.89	293.6	10.65	1.698
-6	2.560	-9.835	186.9	384.5	0.768	77.01	285.8	10.73	1.696
-4	2.761	-7.795	189.6	385.7	0.772	71.63	278.2	10.81	1.695
-2	2.973	-5.754	192.3	386.9	0.776	66.69	270.9	10.89	1.694
0	3.198	-3.713	195.0	388.1	0.780	62.16	263.8	10.96	1.693
2	3.435	-1.672	197.8	389.2	0.785	57.99	256.9	11.04	1.692
4	3.686	0.369	200.5	390.4	0.789	54.15	250.3	11.12	1.691
6	3.950	2.411	203.3	391.5	0.793	50.62	243.8	11.20	1.691
8	4.229	4.452	206.0	392.7	0.798	47.35	237.6	11.28	1.690
10	4.522	6.494	208.8	393.8	0.802	44.33	231.5	11.35	1.689
12	4.831	8.536	211.6	394.9	0.807	41.54	225.6	11.43	1.688
14	5.156	10.58	214.4	396.0	0.812	38.95	219.8	11.51	1.688
16	5.497	12.62	217.2	397.1	0.817	36.55	214.2	11.59	1.687
18	5.854	14.66	220.1	398.2	0.822	34.32	208.8	11.67	1.686
20	6.229	16.71	222.9	399.2	0.827	32.25	203.5	11.74	1.686
22	6.622	18.75	225.8	400.3	0.832	30.32	198.3	11.82	1.685
24	7.034	20.80	228.7	401.3	0.837	28.53	193.2	11.90	1.684
26	7.464	22.84	231.6	402.3	0.843	26.85	188.3	11.98	1.684
28	7.914	24.88	234.5	403.3	0.849	25.29	183.5	12.05	1.683
30	8.384	26.93	237.5	404.3	0.855	23.83	178.8	12.13	1.683
32	8.875	28.97	240.4	405.2	0.861	22.47	174.2	12.21	1.682
34	9.387	31.02	243.4	406.2	0.867	21.19	169.6	12.29	1.681
36	9.921	33.07	246.4	407.1	0.873	19.99	165.2	12.37	1.681
38	10.48	35.11	249.5	408.0	0.880	18.87	160.9	12.45	1.680
40	11.06	37.16	252.5	408.8	0.887	17.81	156.7	12.53	1.679
45	12.61	42.28	260.2	410.8	0.905	15.45	146.4	12.82	1.678
50	14.33	47.41	268.1	412.6	0.926	13.41	136.6	13.15	1.676
55	16.22	52.54	276.2	414.2	0.948	11.64	127.1	13.52	1.673
60	18.29	57.68	284.6	415.5	0.974	10.10	117.9	13.94	1.670
65	20.55	62.83	293.2	416.5	1.003	8.744	109.0	14.43	1.667
70	23.03	67.99	302.1	416.9	1.037	7.545	100.2	15.02	1.662
75	25.74	73.17	311.5	416.8	1.077	6.472	91.39	15.76	1.656
80	28.70	78.37	321.5	415.9	1.128	5.498	82.43	16.73	1.649
85	31.95	83.60	332.5	413.6	1.197	4.589	72.99	18.09	1.638
90	35.53	88.91	345.3	408.8	1.303	3.693	62.25	20.32	1.620

ENTHALPIES du R437A à l'état surchauffé [kJ/kg]

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

θ rosée [°C]	P abs [bar]	SURCHAUFFE [°C]																	
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
-80	0.040	337.8	341.1	344.4	347.8	351.2	354.6	358.1	361.6	365.2	368.9	372.5	376.3	380.1	383.9	387.7	391.7	395.6	399.6
-75	0.060	341.0	344.3	347.7	351.1	354.5	358.0	361.6	365.2	368.8	372.5	376.2	380.0	383.8	387.7	391.6	395.6	399.6	403.6
-70	0.087	344.1	347.5	350.9	354.3	357.9	361.5	365.1	368.7	372.4	376.1	379.9	383.8	387.6	391.5	395.5	399.5	403.6	407.7
-65	0.125	347.3	350.7	354.2	357.7	361.3	364.9	368.6	372.3	376.0	379.8	383.7	387.5	391.5	395.4	399.5	403.5	407.6	411.8
-60	0.174	350.5	354.0	357.5	361.1	364.7	368.4	372.1	375.9	379.7	383.5	387.4	391.3	395.3	399.3	403.4	407.5	411.7	415.9
-55	0.239	353.7	357.3	360.9	364.5	368.2	371.9	375.7	379.5	383.4	387.3	391.2	395.2	399.2	403.3	407.4	411.6	415.8	420.0
-50	0.323	356.9	360.5	364.2	367.9	371.7	375.4	379.3	383.1	387.1	391.0	395.0	399.0	403.1	407.3	411.4	415.6	419.9	424.2
-45	0.429	361.0	363.8	367.5	371.3	375.1	379.0	382.9	386.8	390.8	394.8	398.8	402.9	407.1	411.2	415.5	419.7	424.0	428.4
-40	0.561	363.3	367.1	370.9	374.7	378.6	382.5	386.5	390.5	394.5	398.6	402.7	406.8	411.0	415.2	419.5	423.8	428.2	432.6
-35	0.725	366.5	370.3	374.2	378.1	382.1	386.1	390.1	394.1	398.2	402.3	406.5	410.7	414.9	419.2	423.6	427.9	432.3	436.8
-30	0.924	369.7	373.6	377.6	381.5	385.6	389.6	393.7	397.8	401.9	406.1	410.3	414.6	418.9	423.2	427.6	432.1	436.5	441.0
-25	1.165	372.8	376.8	380.9	384.9	389.0	393.1	397.3	401.4	405.7	409.9	414.2	418.5	422.9	427.3	431.7	436.2	440.7	445.2
-20	1.453	375.9	380.1	384.2	388.3	392.5	396.6	400.9	405.1	409.4	413.7	418.0	422.4	426.8	431.3	435.8	440.3	444.9	449.5
-15	1.793	379.0	383.2	387.4	391.7	395.9	400.1	404.4	408.7	413.1	417.5	421.9	426.3	430.8	435.3	439.9	444.5	449.1	453.7
-10	2.193	382.1	386.4	390.7	395.0	399.3	403.6	408.0	412.4	416.8	421.2	425.7	430.2	434.7	439.3	443.9	448.6	453.3	458.0
-5	2.659	385.1	389.5	393.9	398.3	402.7	407.1	411.5	416.0	420.5	425.0	429.5	434.1	438.7	443.3	448.0	452.7	457.4	462.2
0	3.198	388.1	392.6	397.1	401.5	406.0	410.5	415.0	419.6	424.1	428.7	433.3	438.0	442.6	447.3	452.1	456.8	461.6	466.5
5	3.816	391.0	395.6	400.2	404.7	409.3	413.9	418.5	423.1	427.7	432.4	437.1	441.8	446.5	451.3	456.1	460.9	465.8	470.7
10	4.522	393.8	398.5	403.2	407.9	412.6	417.3	421.9	426.6	431.3	436.1	440.8	445.6	450.4	455.3	460.1	465.0	469.9	474.9
15	5.324	396.6	401.4	406.2	411.0	415.8	420.6	425.3	430.1	434.9	439.7	444.6	449.4	454.3	459.2	464.1	469.1	474.1	479.1
20	6.229	399.2	404.2	409.2	414.1	418.9	423.8	428.7	433.6	438.4	443.3	448.2	453.2	458.1	463.1	468.1	473.1	478.2	483.3
25	7.246	401.7	407.0	412.0	417.0	422.0	427.0	432.0	436.9	441.9	446.9	451.9	456.9	461.9	467.0	472.1	477.2	482.3	487.4
30	8.384	404.3	409.6	414.8	419.9	425.1	430.1	435.2	440.3	445.4	450.4	455.5	460.6	465.7	470.8	476.0	481.2	486.3	491.6
35	9.652	406.6	412.1	417.5	422.8	428.0	433.2	438.4	443.6	448.7	453.9	459.1	464.3	469.4	474.7	479.9	485.1	490.4	495.7
40	11.06	408.8	414.5	420.0	425.5	430.9	436.2	441.5	446.8	452.1	457.3	462.6	467.9	473.1	478.4	483.7	489.1	494.4	499.7
45	12.61	410.8	416.7	422.5	428.1	433.6	439.1	444.5	449.9	455.3	460.7	466.0	471.4	476.8	482.2	487.5	492.9	498.4	503.8
50	14.33	412.6	418.8	424.8	430.6	436.3	441.9	447.5	453.0	458.5	464.0	469.4	474.9	480.4	485.8	491.3	496.8	502.3	507.8
55	16.22	414.2	420.7	426.9	433.0	438.8	444.6	450.3	456.0	461.6	467.2	472.8	478.4	483.9	489.5	495.0	500.6	506.2	511.8
60	18.29	415.5	422.4	428.9	435.2	441.2	447.2	453.1	458.9	464.6	470.4	476.1	481.7	487.4	493.0	498.7	504.4	510.0	515.7
65	20.55	416.5	423.8	430.7	437.2	443.5	449.7	455.7	461.7	467.6	473.4	479.2	485.0	490.8	496.6	502.3	508.1	513.8	519.6
70	23.03	416.9	424.9	432.2	439.0	445.6	452.0	458.2	464.4	470.4	476.4	482.3	488.3	494.1	500.0	505.9	511.7	517.6	523.4
75	25.74	416.8	426.6	433.4	440.7	447.5	454.2	460.6	466.9	473.1	479.3	485.4	491.4	497.4	503.4	509.3	515.3	521.2	527.3
80	28.70	415.9	425.9	433.4	440.2	449.2	456.1	462.8	469.3	475.7	482.0	488.3	494.4	500.6	506.7	512.7	518.8	524.8	530.9
85	31.95	413.6	425.5	434.8	443.1	450.7	457.9	464.8	471.6	478.2	484.7	491.0	497.4	503.6	509.9	516.0	522.2	528.4	534.5
90	35.53	408.8	424.3	434.8	443.7	451.8	459.4	466.6	473.6	480.4	487.1	493.7	500.2	506.6	512.9	519.2	525.5	531.8	538.0

ENTROPIES du R437A à l'état surchauffé [kJ/kg.K]

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

rosée [°C]	P abs [bar]	SURCHAUFFE [°C]																				
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
-80	0.040	1.816	1.833	1.850	1.866	1.882	1.898	1.914	1.929	1.945	1.960	1.976	1.991	2.006	2.021	2.036	2.051	2.065	2.080	2.094	2.108	2.123
-75	0.060	1.800	1.817	1.833	1.849	1.865	1.881	1.897	1.913	1.928	1.943	1.959	1.974	1.989	2.003	2.018	2.033	2.047	2.062	2.076	2.090	2.105
-70	0.087	1.786	1.802	1.819	1.835	1.851	1.866	1.882	1.897	1.913	1.928	1.943	1.958	1.973	1.988	2.002	2.017	2.031	2.046	2.060	2.074	2.088
-65	0.125	1.773	1.789	1.806	1.822	1.837	1.853	1.869	1.884	1.899	1.914	1.929	1.944	1.959	1.974	1.988	2.003	2.017	2.031	2.046	2.060	2.074
-60	0.174	1.762	1.778	1.794	1.810	1.826	1.841	1.857	1.872	1.887	1.902	1.917	1.932	1.946	1.961	1.976	1.990	2.004	2.018	2.033	2.047	2.060
-55	0.239	1.751	1.768	1.784	1.799	1.815	1.831	1.846	1.861	1.876	1.891	1.906	1.921	1.935	1.950	1.964	1.979	1.993	2.007	2.021	2.035	2.049
-50	0.323	1.742	1.758	1.774	1.790	1.806	1.821	1.836	1.851	1.866	1.881	1.896	1.911	1.925	1.940	1.954	1.968	1.983	1.997	2.011	2.024	2.038
-45	0.429	1.734	1.750	1.766	1.782	1.797	1.813	1.828	1.843	1.858	1.873	1.887	1.902	1.917	1.931	1.945	1.959	1.973	1.987	2.001	2.015	2.029
-40	0.561	1.727	1.743	1.759	1.775	1.790	1.805	1.821	1.836	1.850	1.865	1.880	1.894	1.909	1.923	1.937	1.951	1.965	1.979	1.993	2.007	2.021
-35	0.725	1.721	1.737	1.753	1.768	1.784	1.799	1.814	1.829	1.844	1.858	1.873	1.887	1.902	1.916	1.930	1.944	1.958	1.972	1.986	2.000	2.013
-30	0.924	1.715	1.731	1.747	1.763	1.778	1.793	1.808	1.823	1.838	1.853	1.867	1.882	1.896	1.910	1.924	1.938	1.952	1.966	1.980	1.993	2.007
-25	1.165	1.710	1.726	1.742	1.758	1.773	1.788	1.803	1.818	1.833	1.847	1.862	1.876	1.891	1.905	1.919	1.933	1.947	1.960	1.974	1.988	2.001
-20	1.453	1.706	1.722	1.738	1.753	1.769	1.784	1.799	1.814	1.828	1.843	1.857	1.872	1.886	1.900	1.914	1.928	1.942	1.956	1.969	1.983	1.996
-15	1.793	1.702	1.718	1.734	1.750	1.765	1.780	1.795	1.810	1.825	1.839	1.854	1.868	1.882	1.896	1.910	1.924	1.938	1.952	1.965	1.979	1.992
-10	2.193	1.699	1.715	1.731	1.746	1.762	1.777	1.792	1.807	1.821	1.836	1.850	1.865	1.879	1.893	1.907	1.921	1.934	1.948	1.962	1.975	1.988
-5	2.659	1.696	1.712	1.728	1.744	1.759	1.774	1.789	1.804	1.819	1.833	1.848	1.862	1.876	1.890	1.904	1.918	1.931	1.945	1.959	1.972	1.985
0	3.198	1.693	1.710	1.726	1.741	1.757	1.772	1.787	1.802	1.816	1.831	1.845	1.860	1.874	1.888	1.902	1.915	1.929	1.943	1.956	1.970	1.983
5	3.816	1.691	1.707	1.724	1.739	1.755	1.770	1.785	1.800	1.815	1.829	1.843	1.858	1.872	1.886	1.900	1.913	1.927	1.941	1.954	1.968	1.981
10	4.522	1.689	1.706	1.722	1.738	1.753	1.768	1.783	1.798	1.813	1.828	1.842	1.856	1.870	1.884	1.898	1.912	1.926	1.939	1.953	1.966	1.979
15	5.324	1.687	1.704	1.720	1.736	1.752	1.767	1.782	1.797	1.812	1.826	1.841	1.855	1.869	1.883	1.897	1.911	1.924	1.938	1.951	1.965	1.978
20	6.229	1.686	1.702	1.719	1.735	1.751	1.766	1.781	1.796	1.811	1.826	1.840	1.854	1.868	1.882	1.896	1.910	1.924	1.937	1.951	1.964	1.977
25	7.246	1.684	1.701	1.718	1.734	1.750	1.765	1.780	1.795	1.810	1.825	1.839	1.854	1.868	1.882	1.896	1.909	1.923	1.937	1.950	1.963	1.977
30	8.384	1.683	1.700	1.717	1.733	1.749	1.764	1.780	1.795	1.810	1.824	1.839	1.853	1.867	1.881	1.895	1.909	1.923	1.936	1.950	1.963	1.976
35	9.652	1.681	1.699	1.716	1.732	1.748	1.764	1.779	1.795	1.810	1.824	1.839	1.853	1.867	1.881	1.895	1.909	1.923	1.936	1.950	1.963	1.976
40	11.06	1.679	1.697	1.715	1.731	1.748	1.764	1.779	1.794	1.809	1.824	1.839	1.853	1.867	1.882	1.895	1.909	1.923	1.937	1.950	1.963	1.976
45	12.61	1.678	1.696	1.714	1.731	1.747	1.763	1.779	1.794	1.809	1.824	1.839	1.853	1.868	1.882	1.896	1.910	1.923	1.937	1.950	1.964	1.977
50	14.33	1.676	1.695	1.713	1.730	1.747	1.763	1.779	1.794	1.809	1.824	1.839	1.854	1.868	1.882	1.896	1.910	1.924	1.937	1.951	1.964	1.977
55	16.22	1.673	1.693	1.711	1.729	1.746	1.762	1.779	1.794	1.810	1.825	1.840	1.854	1.869	1.883	1.897	1.911	1.925	1.938	1.952	1.965	1.978
60	18.29	1.670	1.691	1.710	1.728	1.745	1.762	1.778	1.794	1.810	1.825	1.840	1.855	1.869	1.883	1.898	1.912	1.925	1.939	1.952	1.966	1.979
65	20.55	1.667	1.688	1.708	1.727	1.745	1.762	1.778	1.794	1.810	1.825	1.840	1.855	1.870	1.884	1.898	1.912	1.926	1.940	1.953	1.967	1.980
70	23.03	1.662	1.685	1.706	1.725	1.744	1.761	1.778	1.794	1.810	1.826	1.841	1.856	1.870	1.885	1.899	1.913	1.927	1.941	1.954	1.968	1.981
75	25.74	1.656	1.682	1.703	1.724	1.742	1.760	1.777	1.794	1.810	1.826	1.841	1.856	1.871	1.886	1.900	1.914	1.928	1.942	1.955	1.969	1.982
80	28.70	1.649	1.677	1.700	1.721	1.741	1.759	1.777	1.794	1.810	1.826	1.841	1.857	1.872	1.886	1.901	1.915	1.929	1.943	1.956	1.970	1.983
85	31.95	1.638	1.661	1.696	1.718	1.739	1.758	1.776	1.793	1.810	1.826	1.842	1.857	1.872	1.887	1.901	1.916	1.930	1.944	1.957	1.971	1.984
90	35.53	1.620	1.663	1.691	1.715	1.736	1.756	1.774	1.792	1.809	1.825	1.841	1.857	1.872	1.887	1.902	1.916	1.930	1.944	1.958	1.972	1.985

ENTHALPIES du R437A à l'état surchauffé [kJ/kg]

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

θ rosée	P abs	SURCHAUFFE [°C]																				
[°C]	[bar]	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
-80	0.040	337.8	341.1	344.4	347.8	351.2	354.6	358.1	361.6	365.2	368.9	372.5	376.3	380.1	383.9	387.7	391.7	395.6	399.6	403.7	407.8	411.9
-75	0.060	341.0	344.3	347.7	351.1	354.5	358.0	361.6	365.2	368.8	372.5	376.2	380.0	383.8	387.7	391.6	395.6	399.6	403.6	407.7	411.9	416.1
-70	0.087	344.1	347.5	350.9	354.4	357.9	361.5	365.1	368.7	372.4	376.1	379.9	383.8	387.6	391.5	395.5	399.5	403.6	407.7	411.8	416.0	420.3
-65	0.125	347.3	350.7	354.2	357.7	361.3	364.9	368.6	372.3	376.0	379.8	383.7	387.5	391.5	395.4	399.5	403.5	407.6	411.8	416.0	420.2	424.5
-60	0.174	350.5	354.0	357.5	361.1	364.7	368.4	372.1	375.9	379.7	383.5	387.4	391.3	395.3	399.3	403.4	407.5	411.7	415.9	420.1	424.4	428.7
-55	0.239	353.7	357.3	360.9	364.5	368.2	371.9	375.7	379.5	383.4	387.3	391.2	395.2	399.2	403.3	407.4	411.6	415.8	420.0	424.3	428.6	433.0
-50	0.323	356.9	360.5	364.2	367.9	371.7	375.4	379.3	383.1	387.1	391.0	395.0	399.0	403.1	407.3	411.4	415.6	419.9	424.2	428.5	432.9	437.3
-45	0.429	360.1	363.8	367.5	371.3	375.1	379.0	382.9	386.8	390.8	394.8	398.8	402.9	407.1	411.2	415.5	419.7	424.0	428.4	432.8	437.2	441.7
-40	0.561	363.3	367.1	370.9	374.7	378.6	382.5	386.5	390.5	394.5	398.6	402.7	406.8	411.0	415.2	419.5	423.8	428.2	432.6	437.0	441.5	446.0
-35	0.725	366.5	370.3	374.2	378.1	382.1	386.1	390.1	394.1	398.2	402.3	406.5	410.7	414.9	419.2	423.6	427.9	432.3	436.8	441.3	445.8	450.4
-30	0.924	369.7	373.6	377.6	381.5	385.6	389.6	393.7	397.8	401.9	406.1	410.3	414.6	418.9	423.2	427.6	432.1	436.5	441.0	445.6	450.1	454.8
-25	1.165	372.8	376.8	380.9	384.9	389.0	393.1	397.3	401.4	405.7	409.9	414.2	418.5	422.9	427.3	431.7	436.2	440.7	445.2	449.8	454.5	459.1
-20	1.453	375.9	380.1	384.2	388.3	392.5	396.6	400.9	405.1	409.4	413.7	418.0	422.4	426.8	431.3	435.8	440.3	444.9	449.5	454.1	458.8	463.5
-15	1.793	379.0	383.2	387.4	391.7	395.9	400.1	404.4	408.7	413.1	417.5	421.9	426.3	430.8	435.3	439.9	444.5	449.1	453.7	458.4	463.2	468.0
-10	2.193	382.1	386.4	390.7	395.0	399.3	403.6	408.0	412.4	416.8	421.2	425.7	430.2	434.7	439.3	443.9	448.6	453.3	458.0	462.7	467.5	472.4
-5	2.659	385.1	389.5	393.9	398.3	402.7	407.1	411.5	416.0	420.5	425.0	429.5	434.1	438.7	443.3	448.0	452.7	457.4	462.2	467.0	471.9	476.8
0	3.198	388.1	392.6	397.1	401.5	406.0	410.5	415.0	419.6	424.1	428.7	433.3	438.0	442.6	447.3	452.1	456.8	461.6	466.5	471.3	476.2	481.2
5	3.816	391.0	395.6	400.2	404.7	409.3	413.9	418.5	423.1	427.7	432.4	437.1	441.8	446.5	451.3	456.1	460.9	465.8	470.7	475.6	480.6	485.6
10	4.522	393.8	398.5	403.2	407.9	412.6	417.3	421.9	426.6	431.3	436.1	440.8	445.6	450.4	455.3	460.1	465.0	469.9	474.9	479.9	484.9	490.0
15	5.324	396.6	401.4	406.2	411.0	415.8	420.6	425.3	430.1	434.9	439.7	444.6	449.4	454.3	459.2	464.1	469.1	474.1	479.1	484.1	489.2	494.3
20	6.229	399.2	404.2	409.2	414.1	418.9	423.8	428.7	433.6	438.4	443.3	448.2	453.2	458.1	463.1	468.1	473.1	478.2	483.3	488.4	493.5	498.7
25	7.246	401.8	407.0	412.0	417.0	422.0	427.0	432.0	436.9	441.9	446.9	451.9	456.9	461.9	467.0	472.1	477.2	482.3	487.4	492.6	497.8	503.0
30	8.384	404.3	409.6	414.8	419.9	425.1	430.1	435.2	440.3	445.4	450.4	455.5	460.6	465.7	470.8	476.0	481.2	486.3	491.6	496.8	502.1	507.4
35	9.652	406.6	412.1	417.5	422.8	428.0	433.2	438.4	443.6	448.7	453.9	459.1	464.3	469.4	474.7	479.9	485.1	490.4	495.7	501.0	506.3	511.7
40	11.06	408.8	414.5	420.0	425.5	430.9	436.2	441.5	446.8	452.1	457.3	462.6	467.9	473.1	478.4	483.7	489.1	494.4	499.7	505.1	510.5	516.0
45	12.61	410.8	416.7	422.5	428.1	433.6	439.1	444.5	449.9	455.3	460.7	466.0	471.4	476.8	482.2	487.5	492.9	498.4	503.8	509.2	514.7	520.2
50	14.33	412.6	418.8	424.8	430.6	436.3	441.9	447.5	453.0	458.5	464.0	469.4	474.9	480.4	485.8	491.3	496.8	502.3	507.8	513.3	518.9	524.4
55	16.22	414.2	420.7	426.9	433.0	438.8	444.6	450.3	456.0	461.6	467.2	472.8	478.4	483.9	489.5	495.0	500.6	506.2	511.8	517.4	523.0	528.6
60	18.29	415.5	422.4	428.9	435.2	441.2	447.2	453.1	458.9	464.6	470.4	476.1	481.7	487.4	493.0	498.7	504.4	510.0	515.7	521.4	527.1	532.8
65	20.55	416.5	423.8	430.7	437.2	443.5	449.7	455.7	461.7	467.6	473.4	479.2	485.0	490.8	496.6	502.3	508.1	513.8	519.6	525.3	531.1	536.9
70	23.03	416.9	424.9	432.2	439.0	445.6	452.0	458.2	464.4	470.4	476.4	482.3	488.3	494.1	500.0	505.9	511.7	517.6	523.4	529.2	535.1	541.0
75	25.74	416.8	425.6	433.4	440.7	447.5	454.2	460.6	466.9	473.1	479.3	485.4	491.4	497.4	503.4	509.3	515.3	521.2	527.2	533.1	539.1	545.0
80	28.70	415.9	425.9	434.3	442.0	449.2	456.1	462.8	469.3	475.7	482.0	488.3	494.4	500.6	506.7	512.7	518.8	524.8	530.9	536.9	542.9	549.0
85	31.95	413.6	425.5	434.8	443.1	450.7	457.9	464.8	471.6	478.2	484.7	491.0	497.4	503.6	509.9	516.0	522.2	528.4	534.5	540.6	546.8	552.9
90	35.53	408.8	424.3	434.8	443.7	451.8	459.4	466.6	473.6	480.4	487.1	493.7	500.2	506.6	512.9	519.2	525.5	531.8	538.0	544.3	550.5	556.7

ENTROPIES du R437A à l'état surchauffé [kJ/kg.K]

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

θ rosée [°C]	P abs [bar]	SURCHAUFFE [°C]																				
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
-80	0.040	1.816	1.833	1.850	1.866	1.882	1.898	1.914	1.929	1.945	1.960	1.976	1.991	2.006	2.021	2.036	2.051	2.065	2.080	2.094	2.108	2.123
-75	0.060	1.800	1.817	1.833	1.849	1.865	1.881	1.897	1.913	1.928	1.943	1.959	1.974	1.989	2.003	2.018	2.033	2.047	2.062	2.076	2.090	2.105
-70	0.087	1.786	1.802	1.819	1.835	1.851	1.866	1.882	1.897	1.913	1.928	1.943	1.958	1.973	1.988	2.002	2.017	2.031	2.046	2.060	2.074	2.088
-65	0.125	1.773	1.789	1.806	1.822	1.837	1.853	1.869	1.884	1.899	1.914	1.929	1.944	1.959	1.974	1.988	2.003	2.017	2.031	2.046	2.060	2.074
-60	0.174	1.762	1.778	1.794	1.810	1.826	1.841	1.857	1.872	1.887	1.902	1.917	1.932	1.946	1.961	1.976	1.990	2.004	2.018	2.033	2.047	2.060
-55	0.239	1.751	1.768	1.784	1.799	1.815	1.831	1.846	1.861	1.876	1.891	1.906	1.921	1.935	1.950	1.964	1.979	1.993	2.007	2.021	2.035	2.049
-50	0.323	1.742	1.758	1.774	1.790	1.806	1.821	1.836	1.851	1.866	1.881	1.896	1.911	1.925	1.940	1.954	1.968	1.983	1.997	2.011	2.024	2.038
-45	0.429	1.734	1.750	1.766	1.782	1.797	1.813	1.828	1.843	1.858	1.873	1.887	1.902	1.917	1.931	1.945	1.959	1.973	1.987	2.001	2.015	2.029
-40	0.561	1.727	1.743	1.759	1.775	1.790	1.805	1.821	1.836	1.850	1.865	1.880	1.894	1.909	1.923	1.937	1.951	1.965	1.979	1.993	2.007	2.021
-35	0.725	1.721	1.737	1.753	1.768	1.784	1.799	1.814	1.829	1.844	1.858	1.873	1.887	1.902	1.916	1.930	1.944	1.958	1.972	1.986	2.000	2.013
-30	0.924	1.715	1.731	1.747	1.763	1.778	1.793	1.808	1.823	1.838	1.853	1.867	1.882	1.896	1.910	1.924	1.938	1.952	1.966	1.980	1.993	2.007
-25	1.165	1.710	1.726	1.742	1.758	1.773	1.788	1.803	1.818	1.833	1.847	1.862	1.876	1.891	1.905	1.919	1.933	1.947	1.960	1.974	1.988	2.001
-20	1.453	1.706	1.722	1.738	1.753	1.769	1.784	1.799	1.814	1.828	1.843	1.857	1.872	1.886	1.900	1.914	1.928	1.942	1.956	1.969	1.983	1.996
-15	1.793	1.702	1.718	1.734	1.750	1.765	1.780	1.795	1.810	1.825	1.839	1.854	1.868	1.882	1.896	1.910	1.924	1.938	1.952	1.965	1.979	1.992
-10	2.193	1.699	1.715	1.731	1.746	1.762	1.777	1.792	1.807	1.821	1.836	1.850	1.865	1.879	1.893	1.907	1.921	1.934	1.948	1.962	1.975	1.988
-5	2.659	1.696	1.712	1.728	1.744	1.759	1.774	1.789	1.804	1.819	1.833	1.848	1.862	1.876	1.890	1.904	1.918	1.931	1.945	1.959	1.972	1.985
0	3.198	1.693	1.710	1.726	1.741	1.757	1.772	1.787	1.802	1.816	1.831	1.845	1.860	1.874	1.888	1.902	1.915	1.929	1.943	1.956	1.970	1.983
5	3.816	1.691	1.707	1.724	1.739	1.755	1.770	1.785	1.800	1.815	1.829	1.843	1.858	1.872	1.886	1.900	1.913	1.927	1.941	1.954	1.968	1.981
10	4.522	1.689	1.706	1.722	1.738	1.753	1.768	1.783	1.798	1.813	1.828	1.842	1.856	1.870	1.884	1.898	1.912	1.926	1.939	1.953	1.966	1.979
15	5.324	1.687	1.704	1.720	1.736	1.752	1.767	1.782	1.797	1.812	1.826	1.841	1.855	1.869	1.883	1.897	1.911	1.924	1.938	1.951	1.965	1.978
20	6.229	1.686	1.702	1.719	1.735	1.751	1.766	1.781	1.796	1.811	1.826	1.840	1.854	1.868	1.882	1.896	1.910	1.924	1.937	1.951	1.964	1.977
25	7.246	1.684	1.701	1.718	1.734	1.750	1.765	1.780	1.795	1.810	1.825	1.839	1.854	1.868	1.882	1.896	1.909	1.923	1.937	1.950	1.963	1.977
30	8.384	1.683	1.700	1.717	1.733	1.749	1.764	1.780	1.795	1.810	1.824	1.839	1.853	1.867	1.881	1.895	1.909	1.923	1.936	1.950	1.963	1.976
35	9.652	1.681	1.699	1.716	1.732	1.748	1.764	1.779	1.795	1.810	1.824	1.839	1.853	1.867	1.881	1.895	1.909	1.923	1.936	1.950	1.963	1.976
40	11.06	1.679	1.697	1.715	1.731	1.748	1.764	1.779	1.794	1.809	1.824	1.839	1.853	1.867	1.882	1.895	1.909	1.923	1.937	1.950	1.963	1.976
45	12.61	1.678	1.696	1.714	1.731	1.747	1.763	1.779	1.794	1.809	1.824	1.839	1.853	1.868	1.882	1.896	1.910	1.923	1.937	1.950	1.964	1.977
50	14.33	1.676	1.695	1.713	1.730	1.747	1.763	1.779	1.794	1.809	1.824	1.839	1.854	1.868	1.882	1.896	1.910	1.924	1.937	1.951	1.964	1.977
55	16.22	1.673	1.693	1.711	1.729	1.746	1.762	1.779	1.794	1.810	1.825	1.840	1.854	1.869	1.883	1.897	1.911	1.925	1.938	1.952	1.965	1.978
60	18.29	1.670	1.691	1.710	1.728	1.745	1.762	1.778	1.794	1.810	1.825	1.840	1.855	1.869	1.883	1.898	1.912	1.925	1.939	1.952	1.966	1.979
65	20.55	1.667	1.688	1.708	1.727	1.745	1.762	1.778	1.794	1.810	1.825	1.840	1.855	1.870	1.884	1.898	1.912	1.926	1.940	1.953	1.967	1.980
70	23.03	1.662	1.685	1.706	1.725	1.744	1.761	1.778	1.794	1.810	1.826	1.841	1.856	1.870	1.885	1.899	1.913	1.927	1.941	1.954	1.968	1.981
75	25.74	1.656	1.682	1.703	1.724	1.742	1.760	1.777	1.794	1.810	1.826	1.841	1.856	1.871	1.886	1.900	1.914	1.928	1.942	1.955	1.969	1.982
80	28.70	1.649	1.677	1.700	1.721	1.741	1.759	1.777	1.794	1.810	1.826	1.841	1.857	1.872	1.886	1.901	1.915	1.929	1.943	1.956	1.970	1.983
85	31.95	1.638	1.671	1.696	1.718	1.739	1.758	1.776	1.793	1.810	1.826	1.842	1.857	1.872	1.887	1.901	1.916	1.930	1.944	1.957	1.971	1.984
90	35.53	1.620	1.663	1.691	1.715	1.736	1.756	1.774	1.792	1.809	1.825	1.841	1.857	1.872	1.887	1.902	1.916	1.930	1.944	1.958	1.972	1.985

VOLUMES SPECIFIQUES du R437A à l'état surchauffé [dm³/kg]

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

θ rosée [°C]	P abs [bar]	SURCHAUFFE [°C]																				
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
-80	0.040	3852	3954	4055	4156	4257	4358	4459	4560	4661	4762	4862	4963	5063	5164	5264	5365	5465	5566	5666	5767	5867
-75	0.060	2640	2708	2777	2844	2912	2980	3048	3115	3183	3250	3318	3385	3453	3520	3587	3655	3722	3789	3856	3924	3991
-70	0.087	1852	1899	1946	1992	2039	2086	2132	2179	2225	2271	2318	2364	2410	2457	2503	2549	2595	2641	2688	2734	2780
-65	0.125	1326	1360	1393	1426	1458	1491	1524	1557	1589	1622	1654	1687	1719	1752	1784	1817	1849	1881	1914	1946	1979
-60	0.174	968.5	992.4	1016	1040	1063	1087	1111	1134	1157	1181	1204	1227	1251	1274	1297	1321	1344	1367	1390	1413	1437
-55	0.239	719.8	737.3	754.8	772.2	789.5	806.7	823.9	841.1	858.3	875.4	892.4	909.5	926.5	943.6	960.6	977.5	994.5	1011	1028	1045	1062
-50	0.323	543.6	556.7	569.8	582.8	595.7	608.6	621.4	634.2	647.0	659.7	672.5	685.1	697.8	710.5	723.1	735.8	748.4	761.0	773.6	786.1	798.7
-45	0.429	416.6	426.6	436.6	446.4	456.3	466.0	475.8	485.5	495.2	504.8	514.4	524.1	533.6	543.2	552.8	562.3	571.9	581.4	590.9	600.4	609.9
-40	0.561	323.7	331.4	339.1	346.7	354.3	361.8	369.3	376.8	384.3	391.7	399.1	406.5	413.9	421.2	428.6	435.9	443.2	450.5	457.8	465.1	472.4
-35	0.725	254.6	260.7	266.7	272.7	278.6	284.5	290.4	296.2	302.1	307.8	313.6	319.4	325.1	330.9	336.6	342.3	348.0	353.7	359.4	365.0	370.7
-30	0.924	202.6	207.4	212.2	217.0	221.7	226.4	231.0	235.6	240.2	244.8	249.4	254.0	258.5	263.0	267.5	272.0	276.5	281.0	285.5	290.0	294.4
-25	1.165	162.8	166.8	170.6	174.5	178.2	182.0	185.8	189.5	193.2	196.8	200.5	204.1	207.8	211.4	215.0	218.6	222.2	225.8	229.4	232.9	236.5
-20	1.453	132.2	135.4	138.5	141.7	144.8	147.8	150.9	153.9	156.9	159.9	162.8	165.8	168.7	171.6	174.6	177.5	180.4	183.3	186.2	189.0	191.9
-15	1.793	108.2	110.9	113.5	116.1	118.6	121.1	123.6	126.1	128.6	131.0	133.5	135.9	138.3	140.7	143.1	145.5	147.8	150.2	152.5	154.9	157.2
-10	2.193	89.32	91.54	93.73	95.88	98.01	100.1	102.2	104.2	106.3	108.3	110.3	112.3	114.3	116.3	118.3	120.3	122.2	124.2	126.1	128.0	130.0
-5	2.659	74.26	76.15	78.00	79.82	81.61	83.37	85.12	86.85	88.56	90.26	91.95	93.62	95.29	96.94	98.59	100.2	101.9	103.5	105.1	106.7	108.3
0	3.198	62.16	63.78	65.36	66.91	68.43	69.93	71.41	72.88	74.33	75.76	77.19	78.60	80.01	81.40	82.79	84.17	85.54	86.91	88.27	89.62	90.97
5	3.816	52.35	53.75	55.11	56.44	57.75	59.04	60.31	61.56	62.80	64.02	65.24	66.44	67.64	68.82	70.00	71.17	72.34	73.50	74.65	75.80	76.94
10	4.522	44.33	45.55	46.74	47.90	49.03	50.14	51.24	52.32	53.39	54.44	55.48	56.52	57.54	58.56	59.57	60.57	61.57	62.56	63.54	64.52	65.50
15	5.324	37.73	38.80	39.85	40.86	41.85	42.82	43.78	44.72	45.64	46.56	47.46	48.36	49.24	50.12	50.99	51.86	52.72	53.57	54.42	55.26	56.10
20	6.229	32.25	33.21	34.13	35.03	35.90	36.76	37.60	38.42	39.23	40.03	40.82	41.60	42.37	43.14	43.89	44.65	45.39	46.13	46.87	47.60	48.33
25	7.246	27.68	28.54	29.36	30.16	30.94	31.70	32.44	33.17	33.88	34.59	35.28	35.97	36.64	37.31	37.98	38.63	39.29	39.93	40.58	41.21	41.85
30	8.384	23.83	24.61	25.36	26.08	26.77	27.45	28.11	28.76	29.39	30.02	30.63	31.24	31.84	32.43	33.01	33.59	34.17	34.74	35.30	35.86	36.42
35	9.652	20.58	21.29	21.97	22.62	23.25	23.86	24.46	25.04	25.60	26.16	26.71	27.25	27.78	28.31	28.82	29.34	29.85	30.35	30.85	31.34	31.83
40	11.06	17.81	18.47	19.10	19.69	20.26	20.81	21.35	21.87	22.39	22.89	23.38	23.86	24.34	24.81	25.27	25.73	26.18	26.63	27.07	27.51	27.95
45	12.61	15.45	16.06	16.64	17.18	17.71	18.21	18.70	19.18	19.64	20.09	20.54	20.97	21.40	21.82	22.24	22.65	23.05	23.45	23.85	24.24	24.63
50	14.33	13.41	13.98	14.52	15.03	15.52	15.98	16.43	16.86	17.28	17.70	18.10	18.49	18.88	19.26	19.64	20.00	20.37	20.73	21.09	21.44	21.79
55	16.22	11.64	12.19	12.70	13.17	13.62	14.05	14.47	14.87	15.25	15.63	16.00	16.36	16.71	17.05	17.39	17.73	18.06	18.38	18.71	19.02	19.34
60	18.29	10.10	10.63	11.12	11.56	11.99	12.39	12.77	13.14	13.49	13.84	14.18	14.51	14.83	15.14	15.45	15.76	16.06	16.35	16.64	16.93	17.22
65	20.55	8.744	9.268	9.735	10.16	10.56	10.93	11.29	11.63	11.96	12.28	12.59	12.90	13.19	13.48	13.76	14.04	14.32	14.59	14.85	15.11	15.37
70	23.03	7.545	8.070	8.524	8.934	9.312	9.666	10.00	10.32	10.63	10.92	11.21	11.49	11.76	12.03	12.29	12.55	12.80	13.04	13.29	13.53	13.76
75	25.74	6.472	7.009	7.457	7.854	8.216	8.552	8.868	9.169	9.456	9.733	10.000	10.26	10.51	10.76	11.00	11.23	11.46	11.69	11.91	12.13	12.35
80	28.70	5.498	6.063	6.513	6.901	7.249	7.570	7.870	8.153	8.423	8.682	8.931	9.172	9.406	9.634	9.856	10.07	10.29	10.49	10.70	10.90	11.10
85	31.95	4.589	5.214	5.671	6.054	6.392	6.699	6.985	7.253	7.507	7.750	7.983	8.208	8.426	8.638	8.844	9.045	9.242	9.435	9.624	9.810	9.993
90	35.53	3.693	4.439	4.913	5.294	5.624	5.920	6.193	6.447	6.688	6.916	7.135	7.345	7.549	7.746	7.938	8.125	8.307	8.486	8.661	8.833	9.001

VISCOSITES du R437A à l'état surchauffé [μPa.s]

F. Benet d'après REFPROP <http://frederic.benet.free.fr>

Version du : 19/12/2018

		SURCHAUFFE [°C]																				
θ rosée	P abs																					
[°C]	[bar]	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
-80	0.040	7.786	7.987	8.188	8.389	8.589	8.788	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74
-75	0.060	7.987	8.188	8.389	8.589	8.788	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94
-70	0.087	8.188	8.389	8.589	8.788	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13
-65	0.125	8.389	8.589	8.789	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32
-60	0.174	8.589	8.789	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52
-55	0.239	8.789	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71
-50	0.323	8.988	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90
-45	0.429	9.187	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09
-40	0.561	9.386	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28
-35	0.725	9.585	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47
-30	0.924	9.783	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.66
-25	1.165	9.981	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.66	13.85
-20	1.453	10.18	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.66	13.86	14.05
-15	1.793	10.38	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.66	13.86	14.05	14.24
-10	2.193	10.57	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.66	13.86	14.05	14.25	14.44
-5	2.659	10.77	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.67	13.86	14.06	14.25	14.44	14.64
0	3.198	10.96	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.67	13.87	14.06	14.26	14.45	14.65	14.84
5	3.816	11.16	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.47	13.67	13.87	14.07	14.27	14.46	14.66	14.85	15.04
10	4.522	11.35	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.48	13.68	13.88	14.08	14.28	14.47	14.67	14.86	15.06	15.25
15	5.324	11.55	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.28	13.49	13.69	13.89	14.09	14.29	14.49	14.68	14.88	15.08	15.27	15.46
20	6.229	11.74	11.94	12.13	12.32	12.52	12.71	12.90	13.09	13.29	13.50	13.70	13.91	14.11	14.31	14.51	14.70	14.90	15.10	15.29	15.49	15.68
25	7.246	11.94	12.13	12.33	12.52	12.71	12.90	13.10	13.31	13.51	13.72	13.93	14.13	14.33	14.53	14.73	14.93	15.12	15.32	15.52	15.71	15.90
30	8.384	12.13	12.33	12.52	12.71	12.91	13.11	13.33	13.54	13.75	13.95	14.16	14.36	14.56	14.76	14.96	15.16	15.36	15.55	15.75	15.94	16.13
35	9.652	12.33	12.52	12.72	12.93	13.14	13.36	13.57	13.78	13.99	14.19	14.40	14.60	14.80	15.00	15.20	15.40	15.59	15.79	15.98	16.18	16.37
40	11.06	12.53	12.75	12.97	13.19	13.40	13.62	13.83	14.04	14.24	14.45	14.65	14.85	15.05	15.25	15.45	15.65	15.84	16.04	16.23	16.43	16.62
45	12.61	12.82	13.04	13.26	13.47	13.68	13.89	14.10	14.31	14.51	14.71	14.92	15.12	15.32	15.51	15.71	15.91	16.10	16.30	16.49	16.68	16.88
50	14.33	13.15	13.36	13.57	13.77	13.98	14.19	14.39	14.59	14.80	15.00	15.20	15.40	15.59	15.79	15.99	16.18	16.38	16.57	16.76	16.95	17.15
55	16.22	13.52	13.71	13.91	14.11	14.31	14.51	14.71	14.90	15.10	15.30	15.50	15.70	15.89	16.09	16.28	16.47	16.67	16.86	17.05	17.24	17.43
60	18.29	13.94	14.11	14.29	14.47	14.66	14.86	15.05	15.24	15.44	15.63	15.82	16.02	16.21	16.40	16.59	16.78	16.97	17.16	17.35	17.54	17.73
65	20.55	14.43	14.56	14.72	14.89	15.06	15.24	15.42	15.61	15.80	15.98	16.17	16.36	16.55	16.74	16.92	17.11	17.30	17.49	17.67	17.86	18.05
70	23.03	15.02	15.10	15.21	15.36	15.51	15.67	15.84	16.02	16.19	16.37	16.55	16.73	16.92	17.10	17.28	17.47	17.65	17.83	18.02	18.20	18.38
75	25.74	15.76	15.74	15.80	15.90	16.02	16.16	16.31	16.47	16.63	16.80	16.97	17.14	17.32	17.49	17.67	17.85	18.03	18.21	18.39	18.57	18.75
80	28.70	16.73	16.52	16.49	16.53	16.61	16.71	16.84	16.97	17.12	17.27	17.43	17.59	17.76	17.92	18.09	18.27	18.44	18.61	18.79	18.96	19.14
85	31.95	18.09	17.53	17.33	17.28	17.29	17.35	17.44	17.55	17.67	17.80	17.94	18.09	18.24	18.40	18.56	18.72	18.88	19.05	19.22	19.39	19.56
90	35.53	20.32	18.86	18.39	18.19	18.11	18.10	18.14	18.21	18.30	18.40	18.52	18.65	18.78	18.93	19.07	19.22	19.38	19.53	19.69	19.85	20.02