

1.9 Tabelle tecniche

1.9.1 Pressione

bar	N/cm ²	MPa	Psi	bar	N/cm ²	MPa	Psi
0.1	1	0.01	1.45	14	140	1.4	203.00
0.2	2	0.02	2.90	15	150	1.5	217.50
0.3	3	0.03	4.35	16	160	1.6	232.00
0.4	4	0.04	5.80	17	170	1.7	246.50
0.5	5	0.05	7.25	18	180	1.8	261.00
0.6	6	0.06	8.70	19	190	1.9	275.50
0.7	7	0.07	10.15	20	200	2.0	390.00
0.8	8	0.08	11.60	21	210	2.1	304.50
0.9	9	0.09	13.05	22	220	2.2	316.00
1.0	10	0.10	14.50	23	230	2.3	333.50
1.5	15	0.15	21.75	24	240	2.4	348.00
2.0	20	0.20	29.00	25	250	2.5	362.50
2.5	25	0.25	36.25	26	260	2.6	377.00
3.0	30	0.30	43.50	27	270	2.7	391.50
3.5	35	0.35	50.75	28	280	2.8	406.00
4.0	40	0.40	58.00	29	290	2.9	420.50
4.5	45	0.45	65.25	30	300	3.0	435.00
5.0	50	0.50	72.50	35	350	3.5	507.50
5.5	55	0.55	79.75	40	400	4.0	580.00
6.0	60	0.60	87.00	45	450	4.5	652.50
6.5	65	0.65	94.25	50	500	5.0	725.00
7.0	70	0.70	101.50	55	550	5.5	797.50
7.5	75	0.75	108.75	60	600	6.0	870.00
8.0	80	0.80	116.00	65	650	6.5	942.50
8.5	85	0.85	123.25	70	700	7.0	1015.00
9.0	90	0.90	130.50	75	750	7.5	1087.50
9.5	95	0.95	137.75	80	800	8.0	1160.00
10.0	100	1.00	145.00	85	850	8.5	1232.50
11.0	110	1.10	159.50	90	900	9.0	1305.00
12.0	120	1.20	174.00	95	950	9.5	1377.50
13.0	130	1.30	188.50	100	1000	10.0	1450.00

1.9.2 Viscosità

Viscosità cinematica centistokes cSt (mm ² /s)	°Engler °E	Saybolt Universal Ssu	Redwood Seconds n°1 SRW n°1
1	1	---	---
2	1.1	32.7	31
3	1.2	36	33.5
4	1.3	39	36
5	1.4	42.5	38.5
7	1.5	49	44
10	1.8	59	52
15	2.3	77.5	68
20	2.9	98	86
25	3.4	119	105
30	4	140	120
35	4.7	164	145
40	5.3	186	165
50	6.6	232	205
60	8	278	245
70	9.2	324	286
80	10.5	370	327
90	12	415	370
100	13	465	410

1.9.3 Temperature

°C	K	°F	°C	K	°F	°C	K	°F	°C	K	°F
-50	223	-58.0	1	274	33.8	51	324	123.8	105	378	221.0
-49	224	-56.2	2	275	35.6	52	325	125.6	110	383	230.0
-48	225	-54.4	3	276	37.4	53	326	127.4	115	388	239.0
-47	226	-52.6	4	277	39.2	54	327	129.2	120	393	248.0
-46	227	-50.8	5	278	41.0	55	328	131.9	125	398	257.0
-45	228	-49.0	6	279	42.8	56	329	132.8	130	403	266.0
-44	229	-47.2	7	280	44.6	57	330	134.6	135	408	275.0
-43	230	-45.4	8	281	46.4	58	331	136.4	140	413	284.0
-42	231	-43.6	9	282	48.2	59	332	138.2	145	418	293.0
-41	232	-41.8	10	283	50.0	60	333	140.0	150	423	303.0
-40	233	-40.0	11	284	51.8	61	334	141.8	155	428	311.0
-39	234	-38.2	12	285	53.6	62	335	143.6	160	433	320.0
-38	235	-36.4	13	286	55.4	63	336	145.4	165	438	329.0
-37	236	-34.6	14	287	57.2	64	337	147.2	170	443	338.0
-36	237	-32.8	15	288	59.0	65	338	149.0	175	448	347.0
-35	238	-31.0	16	289	60.8	66	339	150.8	180	453	356.0
-34	239	-29.2	17	290	62.6	67	340	152.6	185	458	365.0
-33	240	-27.4	18	291	64.4	68	341	154.4	190	463	374.0
-32	241	-25.6	19	292	66.2	69	342	156.2	195	468	383.0
-31	242	-23.8	20	293	68.0	70	343	158.0	200	473	392.0
-30	243	-22.0	21	294	69.8	71	344	159.8	205	478	401.0
-29	244	-20.2	22	295	71.6	72	345	161.6	210	483	410.0
-28	245	-18.4	23	296	73.4	73	346	163.4	215	488	419.0
-27	246	-16.6	24	297	75.2	74	347	165.2	220	493	428.0
-26	247	-14.8	25	298	77.0	75	348	167.0	225	498	437.0
-25	248	-13.0	26	299	78.8	76	349	168.8	230	503	446.0
-24	249	-11.2	27	300	80.6	77	350	170.6	235	508	455.0
-23	250	-9.4	28	301	82.4	78	351	172.4	240	513	464.0
-22	251	-7.6	29	302	84.2	79	352	174.2	245	518	473.0
-21	252	-5.8	30	303	86.0	80	353	176.0	250	523	482.0
-20	253	-4.0	31	304	87.8	81	354	177.8	255	528	491.0
-19	254	-2.2	32	305	89.6	82	355	179.6	260	533	500.0
-18	255	-0.4	33	306	91.4	83	356	181.4	265	538	509.0
-17	256	1.4	34	307	93.2	84	357	183.2	270	543	518.0
-16	257	3.2	35	308	95.0	85	358	185.0	275	548	527.0
-15	258	5.0	36	309	96.8	86	359	186.8	280	553	536.0
-14	259	6.8	37	310	98.6	87	360	188.6	285	558	545.0
-13	260	8.6	38	311	100.4	88	361	190.4	290	563	554.0
-12	261	10.4	39	312	102.2	89	362	192.2	295	568	563.0
-11	262	12.2	40	313	104.0	90	363	194.0	300	573	572.0
-10	263	14.0	41	314	105.8	91	364	195.8	310	583	590.0
-9	264	15.8	42	315	107.6	92	365	197.6	320	593	608.0
-8	265	17.6	43	316	109.4	93	366	199.4	330	603	626.0
-7	266	19.4	44	317	111.2	94	367	201.2	340	613	644.0
-6	267	21.2	45	318	113.0	95	368	203.0	350	623	662.0
-5	268	23.0	46	319	114.8	96	369	204.8	360	633	680.0
-4	269	24.8	47	320	116.6	97	370	206.6	370	643	698.0
-3	270	26.6	48	321	118.4	98	371	208.4	380	653	716.0
-2	271	28.4	49	322	120.2	99	372	210.2	390	663	734.0
-1	272	30.2	50	323	122.0	100	373	212.0	400	673	752.0
0	273	32.0									

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1.9.4 Vapore

Pressione relativa (bar)	Pressione assoluta (bar)	Temperatura (°C)	Volume specifico del vapore (m³/kg)
---	0.050	32.88	28.192
---	0.500	81.33	3.240
0.00	1.013	100.00	1.673
0.10	1.113	102.66	1.533
0.20	1.213	105.10	1.414
0.35	1.363	108.50	1.268
0.50	1.513	111.61	1.149
0.70	1.713	115.40	1.024
1.00	2.013	120.42	0.881
1.50	2.513	127.62	0.714
2.00	3.013	133.69	0.603
2.50	3.513	139.02	0.522
3.00	4.013	143.75	0.461
3.50	4.513	148.02	0.413
4.00	5.013	151.96	0.374
4.50	5.513	155.55	0.342
5.00	6.013	158.92	0.315
6.00	7.013	165.04	0.272
7.00	8.013	170.50	0.240
8.00	9.013	175.43	0.215
9.00	10.013	179.97	0.194
10.00	11.013	184.13	0.177

1.9.5 Peso specifico

Sostanze liquide			Gas e vapori a 20°C e 1atm *		
Liquido	Temp. (°C)	Peso specifico (Kg/dm ³)	Gas e vapori	Peso specifico	
				Densità relativa rispetto all'aria	(Kg/m ³)
Acetone	25	0,787	Acetilene	0,90	1,085
Acetilene, liquido	70°F	0,38	Acido cloridrico	1,27	1,528
Acido cloridrico 10%	15	1,05	Acido cloridrico	1,26	1,520
Acido cloridrico 20%	15	1,1	Acido fluoridrico	2,37	2,856
Acido cloridrico 30%	15	1,15	Ammoniaca	0,59	0,711
Acido cloridrico 40%	15	1,2	Anidride carbonica	1,52	1,830
Acido nitrico 17%	15	1,1	Argon	1,38	1,663
Acido nitrico 25%	15	1,15	Aria *	1,00	1,205
Acido nitrico 47%	15	1,3	Azoto (atmosferico)	0,97	1,172
Acido nitrico 94%	15	1,5	Benzene	2,70	3,249
Acido solforico 27%	15	1,2	Biossido di zolfo	2,26	2,728
Acido solforico 50%	15	1,4	Butano	2,01	2,417
Acido solforico 87%	15	1,8	Ciclobutano	1,94	2,335
Acido solforico fumante	15	1,89	Ciclopentano	2,42	2,919
Acqua, mare	77°F	1,025	Ciclopropano	1,45	1,748
Acqua, pura	39,2°F	1	Cloro	2,49	2,996
Alcol, etile (etanolo)	25	0,787	Cloruro di etile	2,23	2,687
Alcol, metile (metanolo)	25	0,791	Deuterio	0,07	0,084
Alcol, propile	25	0,802	Elio	0,14	0,166
Ammoniaca (liquida)	25	0,826	Eptani	3,46	4,168
Anilina	25	1,022	Esano	2,97	3,582
Benzene	25	0,876	Etano	1,04	1,251
Benzil	25	1,084	Etere vapore	2,59	3,116
Benzina, Veicolo	60°F	0,739	Etilene	0,97	1,167
Bromo	25	3,12	Fluoro	1,31	1,579
Butano, liquido	25	0,601	Gas illuminante	0,40	0,482
Cherosene	60°F	0,82	Gas naturale	0,7 - 0,5	0,844 - 0,723
Cloroformio	25	1,469	Idrogeno	0,07	0,084
Etano	-89	0,572	Idrogeno solforato	1,18	1,417
Etere	25	0,716	Isobutano	2,01	2,422
Formaldeide	45	0,815	Isobutene	1,94	2,338
Freon R-11	25	1,48	Isopentano	2,48	2,988
Freon R-12	25	1,315	Metano	0,55	0,667
Freon R-22	25	1,197	Monossido di carbonio	0,97	1,165
Glicole etilenico	25	1,1	Neon	0,70	0,840
Latte	15	1,035	Ossigeno	1,10	1,331
Mercurio	25	13,633	Ottano	3,94	4,753
Nafta, petrolio Nafta	15	0,667	Ozono	1,66	2,000
Olio combustibile	60°F	0,893	Pentano	2,49	2,997
Olio di Oliva	15	0,703	Propano	1,52	1,834
Ossigeno	-183	1,14	Propene (propilene)	1,45	1,750
Ottano	25	0,701	Protossido di azoto	1,53	1,844
Potassa caustica 21%	15	1,2	R-12	4,17	5,030
Potassa caustica 49%	15	1,5	R-134a	3,52	4,244
Propano	25	0,495	Vapore acqueo	0,62	0,749
Soda caustica 18%	15	1,2	Vapori di alcool	1,60	1,929
Soda caustica 27%	15	1,3	Vapori di mercurio	6,94	8,363
Soda caustica 47%	15	1,5	Xeno	4,53	5,459
Soda caustica 9%	15	1,1			
Trementina	25	0,871			

*) NTP - Normal Temperature and Pressure – è definita come aria a 20°C e 1 atm

Il peso specifico è il rapporto tra la densità (massa per unità di volume) del gas attuale e la densità dell'aria, il peso specifico non ha unità di misura. La densità dell'aria (NTP) è 1.205 kg/m³.