

Table 31. Average values of the partial specific volume, \bar{v}_2 , the corresponding temperature and also the compression of the partial specific volume given as $\bar{k} = bp + cp^2$ in Eq. (29).

To a good approximation, $b \cdot 10^5$ can then be regarded as the relative decrease of the partial specific volume in per cent per 1000 atm. The concentration dependence of the density according to Eq. (21), $\rho_{x_2} = \rho_0 + Ex_2$, is also given, with the concentration expressed as a weight fraction.

Substance	Solvent	Temperature °C	\bar{v}_2 at 1 atm ml/g	$b \cdot 10^5$ atm ⁻¹	$-c \cdot 10^9$ atm ⁻²	E g/ml	Table No.
Cellulose acetate co-butyrate	sym-Tetrachloroethane	22.7	0.777	2.48	1.22	-0.378	17
Cellulose triacetate	sym-Tetrachloroethane	21.9	0.744	2.66	1.82	-0.297	17
Dextran	Water	20.9	0.600	0.23		0.400	17
Methyl cellulose	sym-Tetrachloroethane	21.9	0.864	2.88	1.34	-0.601	17
Glucose	Water	21.0	0.620	0.03		0.381	17
Hydroxyethyl cellulose	Water	19.2	0.678	1.05		0.323	17
Nitrocellulose	Ethyl acetate	21.3	0.556	0.43		0.449	17
Nylon	98-100 % Formic acid	22.4	0.890	1.96		-0.101	23
Poly- <i>n</i> -butyl acrylate	Methyl isobutyl ketone	23.3	0.944	3.24	1.88	0.197	22
Poly- <i>n</i> -butyl methacrylate	Methyl isobutyl ketone	21.2	0.922	2.84	1.33	0.210	22
Polydimethylsiloxane	Toluene	22.4	1.024			0.100	24
Polyethyl acrylate	Methyl isobutyl ketone	24.3	0.951	3.65	2.27	0.193	22
Polyethylene glycol $M_v = 240$	Water	23.0	0.846	1.07		0.156	23
$M_v = 470,000$	Water	22.8	0.834	0.98		0.167	23
Polyethyl methacrylate	Methyl isobutyl ketone	22.9	0.863	2.60	1.08	0.248	22
Polyisobutylene $M_v = 52,000$	<i>n</i> -Octane	20.9	1.072	2.54	1.21	0.174	23
$M_v = 1,600,000$	<i>n</i> -Octane	23.2	1.069	2.41	1.34	0.177	23
$M_v = 9,600,000$	<i>n</i> -Octane	20.7	1.075	3.17	3.36	0.172	23
Polymethacrylic acid	0.01 M HCl pH 2.0	21.3	0.712	0.94		0.289	18
Polymethyl methacrylate	Methyl isobutyl ketone	21.8	0.816	2.18	0.72	0.278	22
Polymethylphenylsiloxane	Toluene	22.0	0.996			0.121	24
Polystyrene	Toluene	22.7	0.918	2.88	1.63	0.178	25
Polyvinyl acetal	Toluene	20.9	0.848	3.01	2.37	0.230	20
Polyvinyl acetate	Cyclohexanone	23.8	0.849	3.31	1.66	0.180	19
Polyvinyl alcohol	Water	21.6	0.750	0.65		0.251	20
Polyvinyl butyral	<i>n</i> -Amyl alcohol	20.0	0.883	2.66	1.59	0.229	20
Polyvinylcarbazole	Chlorobenzene	23.1	0.793	1.67	0.33	0.138	20
Polyvinyl chloride	Cyclohexanone	23.4	0.711	3.22	4.82	0.310	19
Polyvinyl chloride co-acetate	Cyclohexanone	23.5	0.723	3.24	3.54	0.295	19
Polyvinyl chloride co-vinylidene chloride	Cyclohexanone	23.0	0.703	2.42		0.318	19
Polyvinyl isobutyl ether	<i>n</i> -Amyl alcohol	19.7	1.137	5.58	5.33	0.059	20
Polyvinyl methyl ether	<i>n</i> -Amyl alcohol	23.0	0.983	3.61	2.25	0.163	20
Polyvinylpyrrolidone	Water	23.1	0.781	1.04	0.13	0.220	20
Serum albumin	Water	20.2	0.733	1.34		0.268	26
Serum albumin	Citrate-phosphate buffer pH 4.0	22.2	0.734	0.87		0.263	26
Serum albumin	Phosphate buffer pH 6.2	21.0	0.738	1.23		0.258	26
Sodium carboxymethyl cellulose	0.01 M NaOH pH 12.0	20.6	0.505	-0.86		0.495	17
Sodium polymethacrylate	0.01 M NaOH pH 12.0	21.4	0.385	-6.48		0.615	18
Sodium polymethacrylate	0.01 M NaOH + 1 M NaCl pH 12.0	21.8	0.415	-4.65		0.591	18