



Issued: July 2018

## Volume correction factors — diesel fuel

Density at 15 °C = 840 kg/m<sup>3</sup> (table 54B)

Refer to bulletin V-18 for more information on product classes.

| Volume correction factors to 15 °C for use with all grades of diesel, bio-diesel and diesel blends (including B100) |        |        |        |        |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Temperature °C  | 0      | 0.10   | 0.20   | 0.30   | 0.40   | 0.50   | 0.60   | 0.70   | 0.80   | 0.90   |
| -40   | 1.0457 | 1.0458 | 1.0459 | 1.0459 | 1.0460 | 1.0461 | 1.0462 | 1.0463 | 1.0464 | 1.0464 |
| -39   | 1.0449 | 1.0450 | 1.0450 | 1.0451 | 1.0452 | 1.0453 | 1.0454 | 1.0455 | 1.0455 | 1.0456 |
| -38   | 1.0441 | 1.0441 | 1.0442 | 1.0443 | 1.0444 | 1.0445 | 1.0446 | 1.0446 | 1.0447 | 1.0448 |
| -37   | 1.0432 | 1.0433 | 1.0434 | 1.0435 | 1.0436 | 1.0437 | 1.0437 | 1.0438 | 1.0439 | 1.0440 |
| -36   | 1.0424 | 1.0425 | 1.0426 | 1.0427 | 1.0428 | 1.0428 | 1.0429 | 1.0430 | 1.0431 | 1.0432 |
| -35   | 1.0416 | 1.0417 | 1.0418 | 1.0419 | 1.0419 | 1.0420 | 1.0421 | 1.0422 | 1.0423 | 1.0423 |
| -34   | 1.0408 | 1.0409 | 1.0410 | 1.0410 | 1.0411 | 1.0412 | 1.0413 | 1.0414 | 1.0414 | 1.0415 |
| -33   | 1.0400 | 1.0401 | 1.0401 | 1.0402 | 1.0403 | 1.0404 | 1.0405 | 1.0405 | 1.0406 | 1.0407 |
| -32   | 1.0391 | 1.0392 | 1.0393 | 1.0394 | 1.0395 | 1.0396 | 1.0396 | 1.0397 | 1.0398 | 1.0399 |
| -31   | 1.0383 | 1.0384 | 1.0385 | 1.0386 | 1.0387 | 1.0387 | 1.0388 | 1.0389 | 1.0390 | 1.0391 |
| -30   | 1.0375 | 1.0376 | 1.0377 | 1.0378 | 1.0378 | 1.0379 | 1.0380 | 1.0381 | 1.0382 | 1.0382 |
| -29   | 1.0367 | 1.0368 | 1.0368 | 1.0369 | 1.0370 | 1.0371 | 1.0372 | 1.0373 | 1.0373 | 1.0374 |
| -28   | 1.0359 | 1.0359 | 1.0360 | 1.0361 | 1.0362 | 1.0363 | 1.0364 | 1.0364 | 1.0365 | 1.0366 |
| -27   | 1.0350 | 1.0351 | 1.0352 | 1.0353 | 1.0354 | 1.0354 | 1.0355 | 1.0356 | 1.0357 | 1.0358 |
| -26   | 1.0342 | 1.0343 | 1.0344 | 1.0345 | 1.0345 | 1.0346 | 1.0347 | 1.0348 | 1.0349 | 1.0350 |
| -25   | 1.0334 | 1.0335 | 1.0336 | 1.0336 | 1.0337 | 1.0338 | 1.0339 | 1.0340 | 1.0340 | 1.0341 |

**Volume correction factors to 15 °C for use with all grades of diesel, bio-diesel and diesel blends  
(including B100)**

| Temperature °C | 0      | 0.10   | 0.20   | 0.30   | 0.40   | 0.50   | 0.60   | 0.70   | 0.80   | 0.90   |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| -24            | 1.0326 | 1.0326 | 1.0327 | 1.0328 | 1.0329 | 1.0330 | 1.0331 | 1.0331 | 1.0332 | 1.0333 |
| -23            | 1.0317 | 1.0318 | 1.0319 | 1.0320 | 1.0321 | 1.0321 | 1.0322 | 1.0323 | 1.0324 | 1.0325 |
| -22            | 1.0309 | 1.0310 | 1.0311 | 1.0312 | 1.0312 | 1.0313 | 1.0314 | 1.0315 | 1.0316 | 1.0317 |
| -21            | 1.0301 | 1.0302 | 1.0302 | 1.0303 | 1.0304 | 1.0305 | 1.0306 | 1.0307 | 1.0307 | 1.0308 |
| -20            | 1.0293 | 1.0293 | 1.0294 | 1.0295 | 1.0296 | 1.0297 | 1.0298 | 1.0298 | 1.0299 | 1.0300 |
| -19            | 1.0284 | 1.0285 | 1.0286 | 1.0287 | 1.0288 | 1.0288 | 1.0289 | 1.0290 | 1.0291 | 1.0292 |
| -18            | 1.0276 | 1.0277 | 1.0278 | 1.0278 | 1.0279 | 1.0280 | 1.0281 | 1.0282 | 1.0283 | 1.0283 |
| -17            | 1.0268 | 1.0269 | 1.0269 | 1.0270 | 1.0271 | 1.0272 | 1.0273 | 1.0274 | 1.0274 | 1.0275 |
| -16            | 1.0259 | 1.0260 | 1.0261 | 1.0262 | 1.0263 | 1.0264 | 1.0264 | 1.0265 | 1.0266 | 1.0267 |
| -15            | 1.0251 | 1.0252 | 1.0253 | 1.0254 | 1.0254 | 1.0255 | 1.0256 | 1.0257 | 1.0258 | 1.0259 |
| -14            | 1.0243 | 1.0244 | 1.0244 | 1.0245 | 1.0246 | 1.0247 | 1.0248 | 1.0249 | 1.0249 | 1.0250 |
| -13            | 1.0235 | 1.0235 | 1.0236 | 1.0237 | 1.0238 | 1.0239 | 1.0239 | 1.0240 | 1.0241 | 1.0242 |
| -12            | 1.0226 | 1.0227 | 1.0228 | 1.0229 | 1.0230 | 1.0230 | 1.0231 | 1.0232 | 1.0233 | 1.0234 |
| -11            | 1.0218 | 1.0219 | 1.0220 | 1.0220 | 1.0221 | 1.0222 | 1.0223 | 1.0224 | 1.0225 | 1.0225 |
| -10            | 1.0210 | 1.0210 | 1.0211 | 1.0212 | 1.0213 | 1.0214 | 1.0215 | 1.0215 | 1.0216 | 1.0217 |
| -9             | 1.0201 | 1.0202 | 1.0203 | 1.0204 | 1.0205 | 1.0205 | 1.0206 | 1.0207 | 1.0208 | 1.0209 |
| -8             | 1.0193 | 1.0194 | 1.0195 | 1.0195 | 1.0196 | 1.0197 | 1.0198 | 1.0199 | 1.0200 | 1.0200 |
| -7             | 1.0185 | 1.0185 | 1.0186 | 1.0187 | 1.0188 | 1.0189 | 1.0190 | 1.0190 | 1.0191 | 1.0192 |
| -6             | 1.0176 | 1.0177 | 1.0178 | 1.0179 | 1.0180 | 1.0180 | 1.0181 | 1.0182 | 1.0183 | 1.0184 |
| -5             | 1.0168 | 1.0169 | 1.0170 | 1.0170 | 1.0171 | 1.0172 | 1.0173 | 1.0174 | 1.0175 | 1.0175 |

**Volume correction factors to 15 °C for use with all grades of diesel, bio-diesel and diesel blends  
(including B100)**

| Temperature °C | 0      | 0.10   | 0.20   | 0.30   | 0.40   | 0.50   | 0.60   | 0.70   | 0.80   | 0.90   |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| -4             | 1.0160 | 1.0160 | 1.0161 | 1.0162 | 1.0163 | 1.0164 | 1.0165 | 1.0165 | 1.0166 | 1.0167 |
| -3             | 1.0151 | 1.0152 | 1.0153 | 1.0154 | 1.0155 | 1.0155 | 1.0156 | 1.0157 | 1.0158 | 1.0159 |
| -2             | 1.0143 | 1.0144 | 1.0144 | 1.0145 | 1.0146 | 1.0147 | 1.0148 | 1.0149 | 1.0149 | 1.0150 |
| -1             | 1.0134 | 1.0135 | 1.0136 | 1.0137 | 1.0138 | 1.0139 | 1.0139 | 1.0140 | 1.0141 | 1.0142 |
| -0             | 1.0126 | 1.0127 | 1.0128 | 1.0129 | 1.0129 | 1.0130 | 1.0131 | 1.0132 | 1.0133 | 1.0134 |
| 0              | 1.0126 | 1.0125 | 1.0124 | 1.0124 | 1.0123 | 1.0122 | 1.0121 | 1.0120 | 1.0119 | 1.0119 |
| 1              | 1.0118 | 1.0117 | 1.0116 | 1.0115 | 1.0114 | 1.0114 | 1.0113 | 1.0112 | 1.0111 | 1.0110 |
| 2              | 1.0109 | 1.0108 | 1.0108 | 1.0107 | 1.0106 | 1.0105 | 1.0104 | 1.0103 | 1.0103 | 1.0102 |
| 3              | 1.0101 | 1.0100 | 1.0099 | 1.0098 | 1.0098 | 1.0097 | 1.0096 | 1.0095 | 1.0094 | 1.0093 |
| 4              | 1.0093 | 1.0092 | 1.0091 | 1.0090 | 1.0089 | 1.0088 | 1.0088 | 1.0087 | 1.0086 | 1.0085 |
| 5              | 1.0084 | 1.0083 | 1.0082 | 1.0082 | 1.0081 | 1.0080 | 1.0079 | 1.0078 | 1.0077 | 1.0077 |
| 6              | 1.0076 | 1.0075 | 1.0074 | 1.0073 | 1.0072 | 1.0072 | 1.0071 | 1.0070 | 1.0069 | 1.0068 |
| 7              | 1.0067 | 1.0067 | 1.0066 | 1.0065 | 1.0064 | 1.0063 | 1.0062 | 1.0061 | 1.0061 | 1.0060 |
| 8              | 1.0059 | 1.0058 | 1.0057 | 1.0056 | 1.0056 | 1.0055 | 1.0054 | 1.0053 | 1.0052 | 1.0051 |
| 9              | 1.0051 | 1.0050 | 1.0049 | 1.0048 | 1.0047 | 1.0046 | 1.0046 | 1.0045 | 1.0044 | 1.0043 |
| 10             | 1.0042 | 1.0041 | 1.0040 | 1.0040 | 1.0039 | 1.0038 | 1.0037 | 1.0036 | 1.0035 | 1.0035 |
| 11             | 1.0034 | 1.0033 | 1.0032 | 1.0031 | 1.0030 | 1.0030 | 1.0029 | 1.0028 | 1.0027 | 1.0026 |
| 12             | 1.0025 | 1.0024 | 1.0024 | 1.0023 | 1.0022 | 1.0021 | 1.0020 | 1.0019 | 1.0019 | 1.0018 |
| 13             | 1.0017 | 1.0016 | 1.0015 | 1.0014 | 1.0013 | 1.0013 | 1.0012 | 1.0011 | 1.0010 | 1.0009 |
| 14             | 1.0008 | 1.0008 | 1.0007 | 1.0006 | 1.0005 | 1.0004 | 1.0003 | 1.0003 | 1.0002 | 1.0001 |

**Volume correction factors to 15 °C for use with all grades of diesel, bio-diesel and diesel blends  
(including B100)**

| Temperature °C | 0      | 0.10   | 0.20   | 0.30   | 0.40   | 0.50   | 0.60   | 0.70   | 0.80   | 0.90   |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 15             | 1.0000 | 0.9999 | 0.9998 | 0.9997 | 0.9997 | 0.9996 | 0.9995 | 0.9994 | 0.9993 | 0.9992 |
| 16             | 0.9992 | 0.9991 | 0.9990 | 0.9989 | 0.9988 | 0.9987 | 0.9986 | 0.9986 | 0.9985 | 0.9984 |
| 17             | 0.9983 | 0.9982 | 0.9981 | 0.9981 | 0.9980 | 0.9979 | 0.9978 | 0.9977 | 0.9976 | 0.9976 |
| 18             | 0.9975 | 0.9974 | 0.9973 | 0.9972 | 0.9971 | 0.9970 | 0.9970 | 0.9969 | 0.9968 | 0.9967 |
| 19             | 0.9966 | 0.9965 | 0.9965 | 0.9964 | 0.9963 | 0.9962 | 0.9961 | 0.9960 | 0.9959 | 0.9959 |
| 20             | 0.9958 | 0.9957 | 0.9956 | 0.9955 | 0.9954 | 0.9954 | 0.9953 | 0.9952 | 0.9951 | 0.9950 |
| 21             | 0.9949 | 0.9948 | 0.9948 | 0.9947 | 0.9946 | 0.9945 | 0.9944 | 0.9943 | 0.9943 | 0.9942 |
| 22             | 0.9941 | 0.9940 | 0.9939 | 0.9938 | 0.9937 | 0.9937 | 0.9936 | 0.9935 | 0.9934 | 0.9933 |
| 23             | 0.9932 | 0.9932 | 0.9931 | 0.9930 | 0.9929 | 0.9928 | 0.9927 | 0.9926 | 0.9926 | 0.9925 |
| 24             | 0.9924 | 0.9923 | 0.9922 | 0.9921 | 0.9920 | 0.9920 | 0.9919 | 0.9918 | 0.9917 | 0.9916 |
| 25             | 0.9915 | 0.9915 | 0.9914 | 0.9913 | 0.9912 | 0.9911 | 0.9910 | 0.9909 | 0.9909 | 0.9908 |
| 26             | 0.9907 | 0.9906 | 0.9905 | 0.9904 | 0.9904 | 0.9903 | 0.9902 | 0.9901 | 0.9900 | 0.9899 |
| 27             | 0.9898 | 0.9898 | 0.9897 | 0.9896 | 0.9895 | 0.9894 | 0.9893 | 0.9893 | 0.9892 | 0.9891 |
| 28             | 0.9890 | 0.9889 | 0.9888 | 0.9887 | 0.9887 | 0.9886 | 0.9885 | 0.9884 | 0.9883 | 0.9882 |
| 29             | 0.9881 | 0.9881 | 0.9880 | 0.9879 | 0.9878 | 0.9877 | 0.9876 | 0.9876 | 0.9875 | 0.9874 |
| 30             | 0.9873 | 0.9872 | 0.9871 | 0.9870 | 0.9870 | 0.9869 | 0.9868 | 0.9867 | 0.9866 | 0.9865 |
| 31             | 0.9864 | 0.9864 | 0.9863 | 0.9862 | 0.9861 | 0.9860 | 0.9859 | 0.9859 | 0.9858 | 0.9857 |
| 32             | 0.9856 | 0.9855 | 0.9854 | 0.9853 | 0.9853 | 0.9852 | 0.9851 | 0.9850 | 0.9849 | 0.9848 |
| 33             | 0.9847 | 0.9847 | 0.9846 | 0.9845 | 0.9844 | 0.9843 | 0.9842 | 0.9841 | 0.9841 | 0.9840 |
| 34             | 0.9839 | 0.9838 | 0.9837 | 0.9836 | 0.9836 | 0.9835 | 0.9834 | 0.9833 | 0.9832 | 0.9831 |

**Volume correction factors to 15 °C for use with all grades of diesel, bio-diesel and diesel blends  
(including B100)**

| Temperature °C | 0      | 0.10   | 0.20   | 0.30   | 0.40   | 0.50   | 0.60   | 0.70   | 0.80   | 0.90   |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 35             | 0.9830 | 0.9830 | 0.9829 | 0.9828 | 0.9827 | 0.9826 | 0.9825 | 0.9824 | 0.9824 | 0.9823 |
| 36             | 0.9822 | 0.9821 | 0.9820 | 0.9819 | 0.9818 | 0.9818 | 0.9817 | 0.9816 | 0.9815 | 0.9814 |
| 37             | 0.9813 | 0.9813 | 0.9812 | 0.9811 | 0.9810 | 0.9809 | 0.9808 | 0.9807 | 0.9807 | 0.9806 |
| 38             | 0.9805 | 0.9804 | 0.9803 | 0.9802 | 0.9801 | 0.9801 | 0.9800 | 0.9799 | 0.9798 | 0.9797 |
| 39             | 0.9796 | 0.9795 | 0.9795 | 0.9794 | 0.9793 | 0.9792 | 0.9791 | 0.9790 | 0.9789 | 0.9789 |
| 40             | 0.9788 | 0.9787 | 0.9786 | 0.9785 | 0.9784 | 0.9784 | 0.9783 | 0.9782 | 0.9781 | 0.9780 |
| 41             | 0.9779 |        |        |        |        |        |        |        |        |        |

**Density at 15 °C = 840 Kg/m<sup>3</sup>**

**Values calculated as per API Standard 2540 (1980) Chapter 11.1**

To obtain the net volume of liquid at 15 °C, multiply the uncompensated meter reading by the volume correction factor which corresponds to the average measured temperature of the liquid during the delivery.