



Technical informations
Informations techniques

Heat losses on pipes / conversion °C - °F

Déperditions sur tuyauteries (suite) / équivalence °C - °F

Heat losses on pipes (W/m) / Déperditions sur tuyauteries (W/m.lin)

| Insulation thickness Épaisseur calorifuge | Δt (°C) | Pipe dimensions - Nominal dia: inches. Ext dia: mm / Dimensions tuyau - DN (pouces) - Ø extérieur (mm) | | | | | | | | | | | | | | | |
|--|---------|--|-------------|-------------|-----------|---------------|---------------|-----------|---------------|-----------|------------|------------|------------|-------------|-------------|-------------|-------------|
| | | 1/4 14mm | 1/2 21mm | 3/4 27mm | 1 34mm | 1 1/4 42mm | 1 1/2 48mm | 2 60mm | 2 1/2 76mm | 3 89mm | 4 114mm | 6 168mm | 8 219mm | 10 273mm | 12 324mm | 14 356mm | 16 406mm |
| 80 | 20 | 1.9 | 2.3 | 2.5 | 2.8 | 3.1 | 3.3 | 3.8 | 4.3 | 4.8 | 5.6 | 7.3 | 8.9 | 10.5 | 12.1 | 13.0 | 14.6 |
| | 30 | 3.0 | 3.5 | 3.9 | 4.3 | 4.8 | 5.1 | 5.7 | 6.6 | 7.3 | 8.5 | 11.1 | 13.5 | 16.1 | 18.4 | 19.9 | 22.2 |
| | 40 | 4.0 | 4.7 | 5.2 | 5.8 | 6.5 | 6.9 | 7.8 | 8.9 | 9.8 | 11.5 | 15.1 | 18.4 | 21.8 | 25.0 | 27.0 | 30.1 |
| | 60 | 6.3 | 7.3 | 8.1 | 9.0 | 10.0 | 10.7 | 12.1 | 13.9 | 15.3 | 17.9 | 23.4 | 28.5 | 33.8 | 38.8 | 41.9 | 46.8 |
| | 80 | 8.6 | 10.1 | 11.2 | 12.5 | 13.8 | 14.8 | 16.7 | 19.1 | 21.0 | 24.7 | 32.3 | 39.3 | 46.6 | 53.5 | 57.8 | 64.4 |
| | 100 | 11.1 | 13.0 | 14.5 | 16.1 | 17.8 | 19.1 | 21.5 | 24.7 | 27.2 | 31.8 | 41.6 | 50.7 | 60.2 | 69.0 | 74.5 | 93.1 |
| | 120 | 13.8 | 16.1 | 17.9 | 19.9 | 22.0 | 23.6 | 26.6 | 30.5 | 33.6 | 39.4 | 51.5 | 62.7 | 74.4 | 85.4 | 92.2 | 102.8 |
| | 140 | 16.5 | 19.3 | 21.5 | 23.9 | 26.5 | 28.4 | 32.0 | 36.7 | 40.4 | 47.4 | 61.9 | 75.4 | 89.5 | 102.6 | 110.8 | 123.5 |
| | 160 | 19.5 | 22.8 | 25.3 | 28.1 | 31.2 | 33.4 | 37.2 | 43.2 | 47.5 | 55.7 | 72.9 | 88.7 | 105.2 | 120.7 | 130.3 | 145.2 |
| 180 | 22.5 | 26.3 | 29.3 | 32.6 | 36.1 | 38.6 | 43.6 | 50.0 | 55.0 | 64.5 | 84.3 | 102.6 | 121.7 | 139.6 | 150.7 | 160.0 | |
| 100 | 20 | 1.9 | 2.2 | 2.4 | 2.7 | 3.0 | 3.2 | 3.5 | 4.0 | 4.4 | 5.1 | 6.6 | 7.9 | 9.4 | 10.7 | 11.5 | 12.8 |
| | 30 | 2.9 | 3.4 | 3.7 | 4.1 | 4.5 | 4.8 | 5.4 | 6.1 | 6.7 | 7.8 | 10.0 | 12.1 | 14.3 | 16.3 | 17.6 | 19.5 |
| | 40 | 3.9 | 4.6 | 5.0 | 5.6 | 6.1 | 6.5 | 7.3 | 8.3 | 9.1 | 10.6 | 13.6 | 16.5 | 19.4 | 22.1 | 23.8 | 26.5 |
| | 60 | 6.1 | 7.1 | 7.8 | 8.6 | 9.5 | 10.1 | 11.3 | 12.9 | 14.1 | 16.4 | 21.2 | 25.5 | 30.1 | 34.3 | 37.0 | 41.1 |
| | 80 | 8.4 | 9.8 | 10.8 | 11.9 | 13.1 | 14.0 | 15.6 | 17.8 | 19.5 | 22.6 | 29.1 | 35.2 | 41.5 | 47.3 | 51.0 | 56.6 |
| | 100 | 10.9 | 12.6 | 13.9 | 15.4 | 16.9 | 18.0 | 20.2 | 22.9 | 25.1 | 29.2 | 37.6 | 45.4 | 53.5 | 61.0 | 65.8 | 73.1 |
| | 120 | 13.4 | 15.6 | 17.2 | 19.0 | 20.9 | 22.3 | 25.0 | 28.4 | 31.1 | 36.1 | 46.5 | 56.2 | 66.2 | 75.5 | 81.4 | 90.4 |
| | 140 | 16.2 | 18.7 | 20.7 | 22.2 | 25.2 | 26.8 | 30.0 | 34.1 | 37.3 | 43.4 | 55.9 | 67.5 | 79.5 | 90.8 | 97.8 | 108.6 |
| | 160 | 19.0 | 22.0 | 24.4 | 26.9 | 29.6 | 31.6 | 35.3 | 40.1 | 43.9 | 51.0 | 65.8 | 79.4 | 93.6 | 106.8 | 115.0 | 127.8 |
| 180 | 22.0 | 25.5 | 28.2 | 31.1 | 34.3 | 36.5 | 40.9 | 46.5 | 50.8 | 59.1 | 70.2 | 91.9 | 108.3 | 123.5 | 133.1 | 147.8 | |
| 150 | 20 | 1.7 | 1.9 | 2.1 | 2.3 | 2.5 | 2.6 | 2.9 | 3.2 | 3.5 | 4.0 | 5.0 | 6.0 | 7.0 | 7.9 | 8.4 | 9.3 |
| | 30 | 2.5 | 2.9 | 3.2 | 3.5 | 3.8 | 4.0 | 4.4 | 4.9 | 5.4 | 6.1 | 7.7 | 9.1 | 10.6 | 12.0 | 12.9 | 14.2 |
| | 40 | 3.5 | 3.9 | 4.3 | 4.7 | 5.1 | 5.4 | 6.0 | 6.7 | 7.3 | 8.3 | 10.4 | 12.4 | 14.4 | 16.3 | 17.4 | 19.3 |
| | 60 | 5.4 | 6.1 | 6.7 | 7.3 | 7.9 | 8.4 | 9.3 | 10.4 | 11.3 | 12.9 | 16.2 | 19.2 | 22.4 | 25.3 | 27.1 | 29.9 |
| | 80 | 7.4 | 8.4 | 9.2 | 10.0 | 10.9 | 11.6 | 12.8 | 14.3 | 15.5 | 17.8 | 22.3 | 26.5 | 30.8 | 34.8 | 37.3 | 41.2 |
| | 100 | 9.5 | 10.9 | 11.9 | 13.0 | 14.1 | 14.9 | 16.5 | 18.5 | 20.1 | 22.9 | 28.8 | 34.2 | 39.7 | 44.9 | 48.1 | 53.1 |
| | 120 | 11.8 | 13.5 | 14.7 | 16.0 | 17.5 | 18.5 | 20.4 | 22.9 | 24.8 | 28.4 | 35.7 | 42.3 | 49.2 | 55.6 | 59.5 | 65.7 |
| | 140 | 14.2 | 16.2 | 17.7 | 19.3 | 21.0 | 22.2 | 24.6 | 27.5 | 29.8 | 34.1 | 42.9 | 50.9 | 59.1 | 66.8 | 71.6 | 79.0 |
| | 160 | 16.7 | 19.0 | 20.8 | 22.7 | 24.7 | 26.2 | 28.9 | 32.4 | 35.1 | 40.1 | 50.5 | 59.8 | 69.5 | 78.8 | 84.2 | 92.9 |
| 180 | 19.3 | 22.0 | 24.1 | 26.3 | 28.6 | 30.3 | 33.5 | 37.5 | 40.6 | 46.4 | 58.4 | 69.2 | 80.5 | 90.9 | 97.4 | 107.5 | |

Use multiplication factor to obtain losses for type of insulation used.

Valeur à multiplier par le facteur de correction suivant le type de calorifuge.

1 W/m °C = 0,86 Kcal / m .hr. °C

| Type | Type | Thermal conductivity at 10°C (W/m°C) Conductivité thermique à 10°C (W/m°C) | Correction factor Facteur de correction |
|-------------------|------------------------|---|--|
| Fibreglass | Laine de verre | 0,036 | 1.0 |
| Rock wool | Laine de roche | 0,038 | 1.06 |
| Foam rubber | Mousse de caoutchouc | 0,042 | 1.17 |
| Polyurethane foam | Mousse de polyuréthane | 0,024 | 0.67 |

Equivalent temperatures (°F and °C) / Tableau d'équivalence des températures (°F et °C)

| °C | °F | °C | °F | °C | °F | °C | °F | °C | °F | °C | °F | °C | °F | °C | °F |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|------|------|------|
| -50 | -58 | 95 | 203 | 240 | 464 | 385 | 725 | 530 | 986 | 675 | 1247 | 820 | 1508 | 965 | 1769 |
| -45 | -49 | 100 | 212 | 245 | 473 | 390 | 734 | 535 | 995 | 680 | 1256 | 825 | 1517 | 970 | 1778 |
| -40 | -40 | 105 | 221 | 250 | 482 | 395 | 743 | 540 | 1004 | 685 | 1265 | 830 | 1526 | 975 | 1787 |
| -35 | -31 | 110 | 230 | 255 | 491 | 400 | 752 | 545 | 1013 | 690 | 1274 | 835 | 1535 | 980 | 1796 |
| -30 | -22 | 115 | 239 | 260 | 500 | 405 | 761 | 550 | 1022 | 695 | 1283 | 840 | 1544 | 985 | 1805 |
| -25 | -13 | 120 | 248 | 265 | 509 | 410 | 770 | 555 | 1031 | 700 | 1292 | 845 | 1553 | 990 | 1814 |
| -20 | -4 | 125 | 257 | 270 | 518 | 415 | 779 | 560 | 1040 | 705 | 1301 | 850 | 1562 | 995 | 1823 |
| -15 | 5 | 130 | 266 | 275 | 527 | 420 | 788 | 565 | 1049 | 710 | 1310 | 855 | 1571 | 1000 | 1832 |
| -10 | 14 | 135 | 275 | 280 | 536 | 425 | 797 | 570 | 1058 | 715 | 1319 | 860 | 1580 | 1005 | 1841 |
| -5 | 23 | 140 | 284 | 285 | 545 | 430 | 806 | 575 | 1067 | 720 | 1328 | 865 | 1589 | 1010 | 1850 |
| 0 | 32 | 145 | 293 | 290 | 554 | 435 | 815 | 580 | 1076 | 725 | 1337 | 870 | 1598 | 1015 | 1859 |
| 5 | 41 | 150 | 302 | 295 | 563 | 440 | 824 | 585 | 1085 | 730 | 1346 | 875 | 1607 | 1020 | 1868 |
| 10 | 50 | 155 | 311 | 300 | 572 | 445 | 833 | 590 | 1094 | 735 | 1355 | 880 | 1616 | 1025 | 1877 |
| 15 | 59 | 160 | 320 | 305 | 581 | 450 | 842 | 595 | 1103 | 740 | 1364 | 885 | 1625 | 1030 | 1886 |
| 20 | 68 | 165 | 329 | 310 | 590 | 455 | 851 | 600 | 1112 | 745 | 1373 | 890 | 1634 | 1035 | 1895 |
| 25 | 77 | 170 | 338 | 315 | 599 | 460 | 860 | 605 | 1121 | 750 | 1382 | 895 | 1643 | 1040 | 1904 |
| 30 | 86 | 175 | 347 | 320 | 608 | 465 | 869 | 610 | 1130 | 755 | 1391 | 900 | 1652 | 1045 | 1913 |
| 35 | 95 | 180 | 356 | 325 | 617 | 470 | 878 | 615 | 1139 | 760 | 1400 | 905 | 1661 | 1050 | 1922 |
| 40 | 104 | 185 | 365 | 330 | 626 | 475 | 887 | 620 | 1148 | 765 | 1409 | 910 | 1670 | 1055 | 1931 |
| 45 | 113 | 190 | 374 | 335 | 635 | 480 | 896 | 625 | 1157 | 770 | 1418 | 915 | 1679 | 1060 | 1940 |
| 50 | 122 | 195 | 383 | 340 | 644 | 485 | 905 | 630 | 1166 | 775 | 1427 | 920 | 1688 | 1065 | 1949 |
| 55 | 131 | 200 | 392 | 345 | 653 | 490 | 914 | 635 | 1175 | 780 | 1436 | 925 | 1697 | 1070 | 1958 |
| 60 | 140 | 205 | 401 | 350 | 662 | 495 | 923 | 640 | 1184 | 785 | 1445 | 930 | 1706 | 1075 | 1967 |
| 65 | 149 | 210 | 410 | 355 | 671 | 500 | 932 | 645 | 1193 | 790 | 1454 | 935 | 1715 | 1080 | 1976 |
| 70 | 158 | 215 | 419 | 360 | 680 | 505 | 941 | 650 | 1202 | 795 | 1463 | 940 | 1724 | 1085 | 1985 |
| 75 | 167 | 220 | 428 | 365 | 689 | 510 | 950 | 655 | 1211 | 800 | 1472 | 945 | 1733 | 1090 | 1994 |
| 80 | 176 | 225 | 437 | 370 | 698 | 515 | 959 | 660 | 1220 | 805 | 1481 | 950 | 1742 | 1095 | 2003 |
| 85 | 185 | 230 | 446 | 375 | 707 | 520 | 968 | 665 | 1229 | 810 | 1490 | 955 | 1751 | 1100 | 2012 |
| 90 | 194 | 235 | 455 | 380 | 716 | 525 | 977 | 670 | 1238 | 815 | 1499 | 960 | 1760 | 1105 | 2021 |